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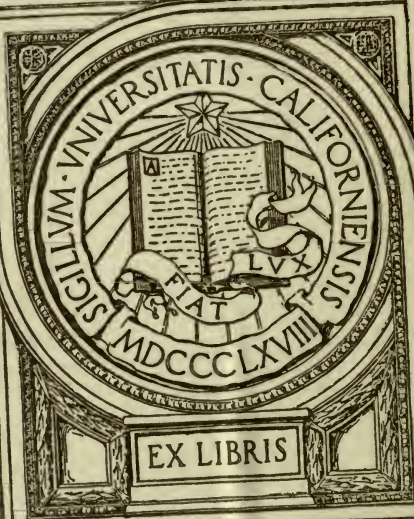
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FOUR-PLACE TABLES

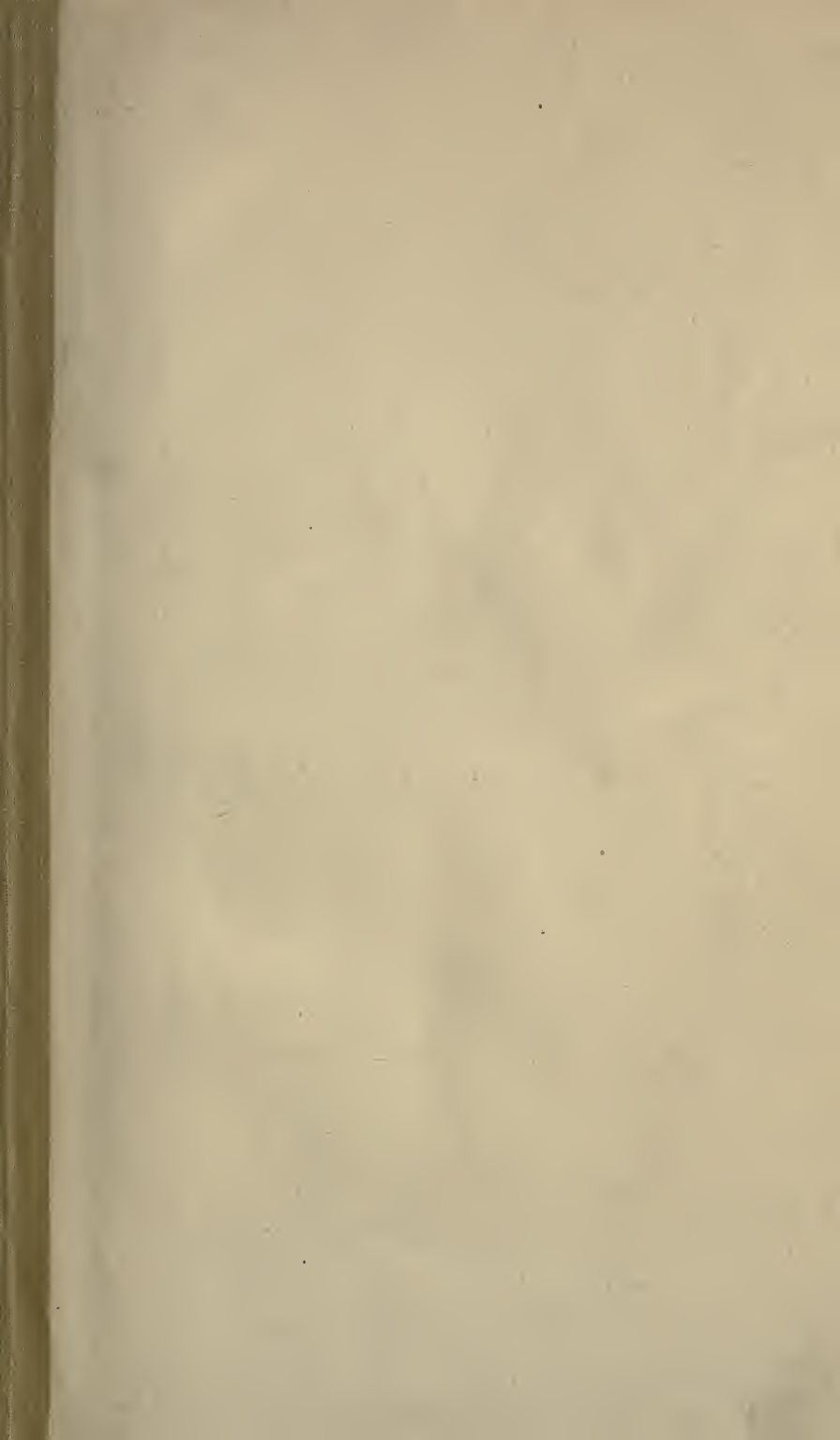
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FOUR-PLACE LOGARITHMIC TABLES

CONTAINING THE

LOGARITHMS OF NUMBERS

AND OF THE

TRIGONOMETRIC FUNCTIONS

*ARRANGED FOR USE IN THE ENTRANCE EXAMINATIONS
OF THE SHEFFIELD SCIENTIFIC SCHOOL
OF YALE UNIVERSITY*



NEW YORK
HENRY HOLT AND COMPANY
1902

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HENRY HOLT & CO.

PREFACE

THESE tables are designed to furnish the student beginning the use of logarithms with an instrument for calculation perfect as far as possible within the limits of four-figure accuracy. The theory of logarithms as taught in the preparatory schools should include some attention to the degree of accuracy attainable in logarithmic computation, and this volume will serve very well to illustrate these principles. The student will appreciate the utility of logarithms just in so far as he is confident of attaining the maximum accuracy of which the system admits.

The admirable work of Dr. C. Bremiker, *Tafeln Vierstelliger Logarithmen*, has been taken as the basis of the present set, which comprises two tables only, viz.:

Logarithms of Numbers from 1 to 2000, pages 2-5;

Logarithms of the Trigonometric Functions, pages 6-29;
from 0° to 8° and 82° to 90° for every *one-hundredth*, and
from 5° to 85° for every *one-tenth* of a degree.

The division of the degree into decimal parts has much to recommend it theoretically, and is also regarded with favor by many expert computers. In fact, a movement towards the adoption of such a system of subdivision is not only gaining headway in France and Germany, but is making itself felt in this country.

My acknowledgments are due my colleagues, Drs. W. A. Granville and E. R. Hedrick, for valuable assistance in reading proofs.

PERCEY F. SMITH.

SHEFFIELD SCIENTIFIC SCHOOL,
NEW HAVEN, CONN.,
January, 1902.

N.	0	1	2	3	4	5	6	7	8	9	P. P.		
0	—	0000	3010	4771	6021	6990	7782	8451	9031	9542		22	21
1	0000	0414	0792	1139	1461	1761	2041	2304	2553	2788	1	2.2	2.1
2	3010	3222	3424	3617	3802	3979	4150	4314	4472	4624	2	4.4	4.2
3	4771	4914	5051	5185	5315	5441	5563	5682	5798	5911	3	6.6	6.3
											4	8.8	8.4
4	6021	6128	6232	6335	6435	6532	6628	6721	6812	6902	5	11.0	10.5
5	6990	7076	7160	7243	7324	7404	7482	7559	7634	7709	6	13.2	12.6
6	7782	7853	7924	7993	8062	8129	8195	8261	8325	8388	7	15.4	14.7
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9	9542	9590	9638	9685	9731	9777	9823	9868	9912	9956	1	2.0	1.9
10	0000	0043	0086	0128	0170	0212	0253	0294	0334	0374	2	4.0	3.8
11	0414	0453	0492	0531	0569	0607	0645	0682	0719	0755	3	6.0	5.7
12	0792	0828	0864	0899	0934	0969	1004	1038	1072	1106	4	8.0	7.6
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											6	12.0	11.4
14	1461	1492	1523	1553	1584	1614	1644	1673	1703	1732	7	14.0	13.3
15	1761	1790	1818	1847	1875	1903	1931	1959	1987	2014	8	16.0	15.2
16	2041	2068	2095	2122	2148	2175	2201	2227	2253	2279	9	18.0	17.1
												18	17
17	2304	2330	2355	2380	2405	2430	2455	2480	2504	2529	1	1.8	1.7
18	2553	2577	2601	2625	2648	2672	2695	2718	2742	2765	2	3.6	3.4
19	2788	2810	2833	2856	2878	2900	2923	2945	2967	2989	3	5.4	5.1
20	3010	3032	3054	3075	3096	3118	3139	3160	3181	3201	4	7.2	6.8
21	3222	3243	3263	3284	3304	3324	3345	3365	3385	3404	5	9.0	8.5
22	3424	3444	3464	3483	3502	3522	3541	3560	3579	3598	6	10.8	10.2
23	3617	3636	3655	3674	3692	3711	3729	3747	3766	3784	7	12.6	11.9
											8	14.4	13.6
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25	3979	3997	4014	4031	4048	4065	4082	4099	4116	4133		16	15
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											6	7.2	6.6
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											2	1.8	1.6
											3	2.7	2.4
											4	3.6	3.2
											5	4.5	4.0
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											7	6.3	5.6
											8	7.2	6.4
											9	8.1	7.2
N.	0	1	2	3	4	5	6	7	8	9			

N.	0	1	2	3	4	5	6	7	8	9	P. P.
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64	8062	8069	8075	8082	8089	8096	8102	8109	8116	8122	5 4.0
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66	8195	8202	8209	8215	8222	8228	8235	8241	8248	8254	7 5.6
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71	8513	8519	8525	8531	8537	8543	8549	8555	8561	8567	2 1.4
72	8573	8579	8585	8591	8597	8603	8609	8615	8621	8627	3 2.1
73	8633	8639	8645	8651	8657	8663	8669	8675	8681	8686	4 2.8
											5 3.5
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75	8751	8756	8762	8768	8774	8779	8785	8791	8797	8802	7 4.9
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83	9191	9196	9201	9206	9212	9217	9222	9227	9232	9238	5 3.0
											6 3.6
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89	9494	9499	9504	9509	9513	9518	9523	9528	9533	9538	2 1.0
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92	9638	9643	9647	9652	9657	9661	9666	9671	9675	9680	5 2.5
93	9685	9689	9694	9699	9703	9708	9713	9717	9722	9727	6 3.0
											7 3.5
94	9731	9736	9741	9745	9750	9754	9759	9763	9768	9773	8 4.0
95	9777	9782	9786	9791	9795	9800	9805	9809	9814	9818	9 4.5
96	9823	9827	9832	9836	9841	9845	9850	9854	9859	9863	
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100	0000	0004	0009	0013	0017	0022	0026	0030	0035	0039	4 1.6
											5 2.0
											6 2.4
											7 2.8
											8 3.2
											9 3.6
N.	0	1	2	3	4	5	6	7	8	9	

N.	0	1	2	3	4	5	6	7	8	9	P. P.
100	0000	0004	0009	0013	0017	0022	0026	0030	0035	0039	<div>5</div> <div>1 0.5</div> <div>2 1.0</div> <div>3 1.5</div> <div>4 2.0</div> <div>5 2.5</div> <div>6 3.0</div> <div>7 3.5</div> <div>8 4.0</div> <div>9 4.5</div>
101	0043	0048	0052	0056	0060	0065	0069	0073	0077	0082	
102	0086	0090	0095	0099	0103	0107	0111	0116	0120	0124	
103	0128	0133	0137	0141	0145	0149	0154	0158	0162	0166	
104	0170	0175	0179	0183	0187	0191	0195	0199	0204	0208	
105	0212	0216	0220	0224	0228	0233	0237	0241	0245	0249	
106	0253	0257	0261	0265	0269	0273	0278	0282	0286	0290	
107	0294	0298	0302	0306	0310	0314	0318	0322	0326	0330	
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112	0492	0496	0500	0504	0508	0512	0515	0519	0523	0527	
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116	0645	0648	0652	0656	0660	0663	0667	0671	0674	0678	
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118	0719	0722	0726	0730	0734	0737	0741	0745	0748	0752	
119	0755	0759	0763	0766	0770	0774	0777	0781	0785	0788	
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122	0864	0867	0871	0874	0878	0881	0885	0888	0892	0896	
123	0899	0903	0906	0910	0913	0917	0920	0924	0927	0931	
124	0934	0938	0941	0945	0948	0952	0955	0959	0962	0966	
125	0969	0973	0976	0980	0983	0986	0990	0993	0997	1000	
126	1004	1007	1011	1014	1017	1021	1024	1028	1031	1035	
127	1038	1041	1045	1048	1052	1055	1059	1062	1065	1069	
128	1072	1075	1079	1082	1086	1089	1093	1096	1099	1103	
129	1106	1109	1113	1116	1119	1123	1126	1129	1133	1136	
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135	1303	1307	1310	1313	1316	1319	1323	1326	1329	1332	
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137	1367	1370	1374	1377	1380	1383	1386	1389	1392	1396	
138	1399	1402	1405	1408	1411	1414	1418	1421	1424	1427	
139	1430	1433	1436	1440	1443	1446	1449	1452	1455	1458	
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142	1523	1526	1529	1532	1535	1538	1541	1544	1547	1550	
143	1553	1556	1559	1562	1565	1569	1572	1575	1578	1581	
144	1584	1587	1590	1593	1596	1599	1602	1605	1608	1611	
145	1614	1617	1620	1623	1626	1629	1632	1635	1638	1641	
146	1644	1647	1649	1652	1655	1658	1661	1664	1667	1670	
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148	1703	1706	1708	1711	1714	1717	1720	1723	1726	1729	
149	1732	1735	1738	1741	1744	1746	1749	1752	1755	1758	
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N.	0	1	2	3	4	5	6	7	8	9	

N.	0	1	2	3	4	5	6	7	8	9	P. P.
150	1761	1764	1767	1770	1772	1775	1778	1781	1784	1787	<div> <div>3</div> <div> 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 </div> </div>
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153	1847	1850	1853	1855	1858	1861	1864	1867	1870	1872	
154	1875	1878	1881	1884	1886	1889	1892	1895	1898	1901	
155	1903	1906	1909	1912	1915	1917	1920	1923	1926	1928	
156	1931	1934	1937	1940	1942	1945	1948	1951	1953	1956	
157	1959	1962	1965	1967	1970	1973	1976	1978	1981	1984	
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159	2014	2017	2019	2022	2025	2028	2030	2033	2036	2038	
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161	2068	2071	2074	2076	2079	2082	2084	2087	2090	2092	
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164	2148	2151	2154	2156	2159	2162	2164	2167	2170	2172	
165	2175	2177	2180	2183	2185	2188	2191	2193	2196	2198	
166	2201	2204	2206	2209	2212	2214	2217	2219	2222	2225	
167	2227	2230	2232	2235	2238	2240	2243	2245	2248	2251	
168	2253	2256	2258	2261	2263	2266	2269	2271	2274	2276	
169	2279	2281	2284	2287	2289	2292	2294	2297	2299	2302	
170	2304	2307	2310	2312	2315	2317	2320	2322	2325	2327	<div> <div>2</div> <div> 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 </div> </div>
171	2330	2333	2335	2338	2340	2343	2345	2348	2350	2353	
172	2355	2358	2360	2363	2365	2368	2370	2373	2375	2378	
173	2380	2383	2385	2388	2390	2393	2395	2398	2400	2403	
174	2405	2408	2410	2413	2415	2418	2420	2423	2425	2428	
175	2430	2433	2435	2438	2440	2443	2445	2448	2450	2453	
176	2455	2458	2460	2463	2465	2467	2470	2472	2475	2477	
177	2480	2482	2485	2487	2490	2492	2494	2497	2499	2502	
178	2504	2507	2509	2512	2514	2516	2519	2521	2524	2526	
179	2529	2531	2533	2536	2538	2541	2543	2545	2548	2550	
180	2553	2555	2558	2560	2562	2565	2567	2570	2572	2574	
181	2577	2579	2582	2584	2586	2589	2591	2594	2596	2598	
182	2601	2603	2605	2608	2610	2613	2615	2617	2620	2622	
183	2625	2627	2629	2632	2634	2636	2639	2641	2643	2646	
184	2648	2651	2653	2655	2658	2660	2662	2665	2667	2669	
185	2672	2674	2676	2679	2681	2683	2686	2688	2690	2693	
186	2695	2697	2700	2702	2704	2707	2709	2711	2714	2716	
187	2718	2721	2723	2725	2728	2730	2732	2735	2737	2739	
188	2742	2744	2746	2749	2751	2753	2755	2758	2760	2762	
189	2765	2767	2769	2772	2774	2776	2778	2781	2783	2785	
190	2788	2790	2792	2794	2797	2799	2801	2804	2806	2808	
191	2810	2813	2815	2817	2819	2822	2824	2826	2828	2831	
192	2833	2835	2838	2840	2842	2844	2847	2849	2851	2853	
193	2856	2858	2860	2862	2865	2867	2869	2871	2874	2876	
194	2878	2880	2883	2885	2887	2889	2891	2894	2896	2898	
195	2900	2903	2905	2907	2909	2911	2914	2916	2918	2920	
196	2923	2925	2927	2929	2931	2934	2936	2938	2940	2942	
197	2945	2947	2949	2951	2953	2956	2958	2960	2962	2964	
198	2967	2969	2971	2973	2975	2978	2980	2982	2984	2986	
199	2989	2991	2993	2995	2997	2999	3002	3004	3006	3008	
200	3010	3012	3015	3017	3019	3021	3023	3025	3028	3030	
N.	0	1	2	3	4	5	6	7	8	9	

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.		
00	—	—	—	—	—	0.0000	100	86	85	84
01	6.2419	—	6.2419	—	3.7581	0.0000	99	1 8.6	8.5	8.4
02	6.5429	—	6.5429	—	3.4571	0.0000	98	2 17.2	17.0	16.8
03	6.7190	—	6.7190	—	3.2810	0.0000	97	3 25.8	25.5	25.2
04	6.8439	969	6.8439	969	3.1561	0.0000	96	4 34.4	34.0	33.6
05	6.9408	792	6.9408	792	3.0592	0.0000	95	5 43.0	42.5	42.0
06	7.0200	670	7.0200	670	2.9800	0.0000	94	6 51.6	51.0	50.4
07	7.0870	580	7.0870	580	2.9130	0.0000	93	7 60.2	59.5	58.8
08	7.1450	511	7.1450	511	2.8550	0.0000	92	8 68.8	68.0	67.2
09	7.1961	458	7.1961	458	2.8039	0.0000	91	9 77.4	76.5	75.6
10	7.2419	414	7.2419	414	2.7581	0.0000	90	83	82	81
11	7.2833	378	7.2833	378	2.7167	0.0000	89	1 8.3	8.2	8.1
12	7.3211	347	7.3211	347	2.6789	0.0000	88	2 16.6	16.4	16.2
13	7.3558	322	7.3558	322	2.6442	0.0000	87	3 24.9	24.6	24.3
14	7.3880	300	7.3880	300	2.6120	0.0000	86	4 33.2	32.8	32.4
15	7.4180	280	7.4180	280	2.5820	0.0000	85	5 41.5	41.0	40.5
16	7.4460	263	7.4460	263	2.5540	0.0000	84	6 49.8	49.2	48.6
17	7.4723	248	7.4723	248	2.5277	0.0000	83	7 58.1	57.4	56.7
18	7.4971	235	7.4971	235	2.5028	0.0000	82	8 66.4	65.6	64.8
19	7.5206	223	7.5206	223	2.4794	0.0000	81	9 74.7	73.8	72.9
20	7.5429	212	7.5429	212	2.4571	0.0000	80	79	78	77
21	7.5641	202	7.5641	202	2.4359	0.0000	79	1 7.9	7.8	7.7
22	7.5843	193	7.5843	193	2.4157	0.0000	78	2 15.8	15.6	15.4
23	7.6036	185	7.6036	185	2.3964	0.0000	77	3 23.7	23.4	23.1
24	7.6221	177	7.6221	177	2.3779	0.0000	76	4 31.6	31.2	30.8
25	7.6398	170	7.6398	171	2.3602	0.0000	75	5 39.5	39.0	38.5
26	7.6568	164	7.6568	163	2.3431	0.0000	74	6 47.4	46.8	46.2
27	7.6732	158	7.6732	158	2.3268	0.0000	73	7 55.3	54.6	53.9
28	7.6890	153	7.6890	153	2.3110	0.0000	72	8 63.2	62.4	61.6
29	7.7043	147	7.7043	147	2.2957	0.0000	71	9 71.1	70.2	69.3
30	7.7190	142	7.7190	142	2.2810	0.0000	70	76	75	74
31	7.7332	138	7.7332	138	2.2668	0.0000	69	1 7.6	7.5	7.4
32	7.7470	134	7.7470	134	2.2530	0.0000	68	2 15.2	15.0	14.8
33	7.7604	130	7.7604	130	2.2396	0.0000	67	3 23.7	23.4	23.1
34	7.7734	125	7.7734	126	2.2266	0.0000	66	4 31.6	31.2	30.8
35	7.7859	123	7.7860	122	2.2140	0.0000	65	5 39.5	39.0	38.5
36	7.7982	119	7.7982	119	2.2018	0.0000	64	6 47.4	46.8	46.2
37	7.8101	116	7.8101	116	2.1899	0.0000	63	7 55.3	54.6	53.9
38	7.8217	112	7.8217	112	2.1783	0.0000	62	8 63.2	62.4	61.6
39	7.8329	110	7.8329	110	2.1671	0.0000	61	9 71.1	70.2	69.3
40	7.8439	108	7.8439	108	2.1561	0.0000	60	73	72	71
41	7.8547	104	7.8547	104	2.1453	0.0000	59	1 7.3	7.2	7.1
42	7.8651	102	7.8651	103	2.1349	0.0000	58	2 14.6	14.4	14.2
43	7.8753	100	7.8754	99	2.1246	0.0000	57	3 21.9	21.6	21.3
44	7.8853	98	7.8853	98	2.1147	0.0000	56	4 29.2	28.8	28.4
45	7.8951	95	7.8951	95	2.1049	0.0000	55	5 36.5	36.0	35.5
46	7.9046	94	7.9046	94	2.0954	0.0000	54	6 43.8	43.2	42.6
47	7.9140	91	7.9140	91	2.0860	0.0000	53	7 51.1	50.4	49.7
48	7.9231	90	7.9231	90	2.0769	0.0000	52	8 58.4	57.6	56.8
49	7.9321	87	7.9321	88	2.0678	0.0000	51	9 65.7	64.8	63.9
50	7.9408	—	7.9409	—	2.0591	0.0000	50	69	68	67
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	1 6.9	6.8	6.7
								2 13.8	13.6	13.4
								3 20.7	20.4	20.1
								4 27.6	27.2	26.8
								5 34.5	34.0	33.5
								6 41.4	40.8	40.2
								7 48.3	47.6	46.9
								8 55.2	54.4	53.6
								9 62.1	61.2	60.3
								66	65	64
								1 6.6	6.5	6.4
								2 13.2	13.0	12.8
								3 19.8	19.5	19.2
								4 26.4	26.0	25.6
								5 33.0	32.5	32.0
								6 39.6	39.0	38.4
								7 46.2	45.5	44.8
								8 52.8	52.0	51.2
								9 59.4	58.5	57.6

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.		
50	7.9408		7.9409		2.0591	0.0000	50	63	62	61
51	7.9494	86	7.9495	86	2.0505	0.0000	49	1 6.3	6.2	6.1
52	7.9579	85	7.9579	84	2.0421	0.0000	48	2 12.6	12.4	12.2
53	7.9661	82	7.9662	83	2.0338	0.0000	47	3 18.9	18.6	18.3
54	7.9743	82	7.9743	81	2.0257	0.0000	46	4 25.2	24.8	24.4
55	7.9822	79	7.9823	80	2.0177	0.0000	45	5 31.5	31.0	30.5
56	7.9901	79	7.9901	78	2.0099	0.0000	44	6 37.8	37.2	36.6
57	7.9977	76	7.9978	77	2.0022	0.0000	43	7 44.1	43.4	42.7
58	8.0053	76	8.0053	75	1.9947	0.0000	42	8 50.4	49.6	48.8
59	8.0127	74	8.0127	74	1.9873	0.0000	41	9 56.7	55.8	54.9
60	8.0200	73	8.0200	73	1.9800	0.0000	40	60	59	58
61	8.0272	72	8.0272	72	1.9728	0.0000	39	1 6.0	5.9	5.8
62	8.0343	71	8.0343	71	1.9657	0.0000	38	2 12.0	11.8	11.6
63	8.0412	69	8.0412	69	1.9588	0.0000	37	3 18.0	17.7	17.4
64	8.0480	68	8.0481	67	1.9519	0.0000	36	4 24.0	23.6	23.2
65	8.0548	66	8.0548	66	1.9452	0.0000	35	5 30.0	29.5	29.0
66	8.0614	65	8.0614	66	1.9386	0.0000	34	6 36.0	35.4	34.8
67	8.0679	65	8.0680	64	1.9320	0.0000	33	7 42.0	41.3	40.6
68	8.0744	63	8.0744	63	1.9256	0.0000	32	8 48.0	47.2	46.4
69	8.0807	63	8.0807	63	1.9193	0.0000	31	9 54.0	53.1	52.2
70	8.0870	61	8.0870	62	1.9130	0.0000	30	57	56	55
71	8.0931	61	8.0932	60	1.9068	0.0000	29	1 5.7	5.6	5.5
72	8.0992	60	8.0992	60	1.9008	0.0000	28	2 11.4	11.2	11.0
73	8.1052	59	8.1052	59	1.8948	0.0000	27	3 17.1	16.8	16.5
74	8.1111	58	8.1111	59	1.8889	0.0000	26	4 22.8	22.4	22.0
75	8.1169	58	8.1170	57	1.8830	0.0000	25	5 28.5	28.0	27.5
76	8.1227	57	8.1227	57	1.8773	0.0000	24	6 34.2	33.6	33.0
77	8.1284	56	8.1284	56	1.8716	0.0000	23	7 39.9	39.2	38.5
78	8.1340	55	8.1340	55	1.8660	0.0000	22	8 45.6	44.8	44.0
79	8.1395	55	8.1395	55	1.8605	0.0000	21	9 51.3	50.4	49.5
80	8.1450	53	8.1450	54	1.8550	0.0000	20	54	53	52
81	8.1503	54	8.1504	53	1.8496	0.0000	19	1 5.4	5.3	5.2
82	8.1557	52	8.1557	53	1.8443	0.0000	18	2 10.8	10.6	10.4
83	8.1609	52	8.1610	52	1.8390	0.0000	17	3 16.2	15.9	15.6
84	8.1661	52	8.1662	51	1.8338	0.0000	16	4 21.6	21.2	20.8
85	8.1713	51	8.1713	51	1.8287	0.0000	15	5 27.0	26.5	26.0
86	8.1764	50	8.1764	50	1.8236	0.0000	14	6 32.4	31.8	31.2
87	8.1814	49	8.1814	50	1.8186	9.9999	13	7 37.8	37.1	36.4
88	8.1863	49	8.1864	49	1.8136	9.9999	12	8 43.2	42.4	41.6
89	8.1912	49	8.1913	49	1.8087	9.9999	11	9 48.6	47.7	46.8
90	8.1961	48	8.1962	48	1.8038	9.9999	10	51	50	49
91	8.2009	47	8.2010	47	1.7990	9.9999	09	1 5.1	5.0	4.9
92	8.2056	47	8.2057	47	1.7943	9.9999	08	2 10.2	10.0	9.8
93	8.2103	47	8.2104	46	1.7896	9.9999	07	3 15.3	15.0	14.7
94	8.2150	46	8.2150	46	1.7850	9.9999	06	4 20.4	20.0	19.6
95	8.2196	45	8.2196	46	1.7804	9.9999	05	5 25.5	25.0	24.5
96	8.2241	45	8.2242	45	1.7758	9.9999	04	6 30.6	30.0	29.4
97	8.2286	45	8.2287	44	1.7713	9.9999	03	7 35.7	35.0	34.3
98	8.2331	44	8.2331	44	1.7669	9.9999	02	8 40.8	40.0	39.2
99	8.2375	44	8.2376	43	1.7624	9.9999	01	9 45.9	45.0	44.1
100	8.2419	44	8.2419	43	1.7581	9.9999	00	48	47	46
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	1 4.8	4.7	4.6
								2 9.6	9.4	9.2
								3 14.4	14.1	13.8
								4 19.2	18.8	18.4
								5 24.0	23.5	23.0
								6 28.8	28.2	27.6
								7 33.6	32.9	32.2
								8 38.4	37.6	36.8
								9 43.2	42.3	41.4
								1 4.5	4.4	4.3
								2 9.0	8.8	8.6
								3 13.5	13.2	12.9
								4 18.0	17.6	17.2
								5 22.5	22.0	21.5
								6 27.0	26.4	25.8
								7 31.5	30.8	30.1
								8 36.0	35.2	34.4
								9 40.5	39.6	38.7

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.	P. P.		
00	8.2419		8.2419		1.7581	9.9999	100	43	42
01	8.2462	43	8.2462	43	1.7538	9.9999	99	1 4.3	4.2
02	8.2505	43	8.2505	43	1.7495	9.9999	98	2 8.6	8.4
03	8.2547	42	8.2548	43	1.7452	9.9999	97	3 12.9	12.6
		42		42				4 17.2	16.8
04	8.2589		8.2590		1.7410	9.9999	96	5 21.5	21.0
05	8.2630	41	8.2631	41	1.7369	9.9999	95	6 25.8	25.2
06	8.2672	42	8.2672	41	1.7328	9.9999	94	7 30.1	29.4
		40		41				8 34.4	33.6
07	8.2712		8.2713		1.7287	9.9999	93	9 38.7	37.8
08	8.2753	41	8.2754	41	1.7246	9.9999	92		
09	8.2793	40	8.2794	40	1.7206	9.9999	91	41	40
10	8.2832	39	8.2833	39	1.7167	9.9999	90	1 4.1	4.0
11	8.2872	40	8.2873	40	1.7127	9.9999	89	2 8.2	8.0
12	8.2911	39	8.2912	39	1.7088	9.9999	88	3 12.3	12.0
13	8.2949	38	8.2950	38	1.7050	9.9999	87	4 16.4	16.0
		39		38				5 20.5	20.0
14	8.2988		8.2988		1.7012	9.9999	86	6 24.6	24.0
15	8.3025	37	8.3026	38	1.6974	9.9999	85	7 28.7	28.0
16	8.3063	38	8.3064	38	1.6936	9.9999	84	8 32.8	32.0
		37		37				9 36.9	36.0
17	8.3100		8.3101		1.6899	9.9999	83	39	38
18	8.3137	37	8.3138	37	1.6862	9.9999	82	1 3.9	3.8
19	8.3174	37	8.3175	37	1.6825	9.9999	81	2 7.8	7.6
		36		36				3 11.7	11.4
20	8.3210	36	8.3211	36	1.6789	9.9999	80	4 15.6	15.2
21	8.3246	36	8.3247	36	1.6753	9.9999	79	5 19.5	19.0
22	8.3282	35	8.3283	35	1.6717	9.9999	78	6 23.4	22.8
23	8.3317	36	8.3318	36	1.6682	9.9999	77	7 27.3	26.6
								8 31.2	30.4
24	8.3353		8.3354		1.6646	9.9999	76	9 35.1	34.2
25	8.3388	35	8.3389	35	1.6611	9.9999	75	37	36
26	8.3422	34	8.3423	34	1.6577	9.9999	74	1 3.7	3.6
		34		35				2 7.4	7.2
27	8.3456		8.3458		1.6542	9.9999	73	3 11.1	10.8
28	8.3491	35	8.3492	34	1.6508	9.9999	72	4 14.8	14.4
29	8.3524	33	8.3525	33	1.6475	9.9999	71	5 18.5	18.0
		34		34				6 22.2	21.6
30	8.3558	33	8.3559	33	1.6441	9.9999	70	7 25.9	25.2
31	8.3591	33	8.3592	33	1.6408	9.9999	69	8 29.6	28.8
32	8.3624	33	8.3625	33	1.6375	9.9999	68	9 33.3	32.4
33	8.3657	32	8.3658	33	1.6342	9.9999	67	35	34
								1 3.5	3.4
34	8.3689		8.3691		1.6309	9.9999	66	2 7.0	6.8
35	8.3722	33	8.3723	32	1.6277	9.9999	65	3 10.5	10.2
36	8.3754	32	8.3755	32	1.6245	9.9999	64	4 14.0	13.6
		32		32				5 17.5	17.0
37	8.3786		8.3787		1.6213	9.9999	63	6 21.0	20.4
38	8.3817	31	8.3818	31	1.6182	9.9999	62	7 24.5	23.8
39	8.3848	31	8.3850	32	1.6150	9.9999	61	8 28.0	27.2
		32		31				9 31.5	30.6
40	8.3880	31	8.3881	31	1.6119	9.9999	60	33	32
41	8.3911		8.3912		1.6088	9.9999	59	1 3.3	3.2
42	8.3941	30	8.3943	31	1.6057	9.9999	58	2 6.6	6.4
43	8.3972	31	8.3973	30	1.6027	9.9999	57	3 9.9	9.6
		30		30				4 13.2	12.8
44	8.4002		8.4003		1.5997	9.9999	56	5 16.5	16.0
45	8.4032	30	8.4033	30	1.5967	9.9999	55	6 19.8	19.2
46	8.4062	30	8.4063	30	1.5937	9.9999	54	7 23.1	22.4
		29		30				8 26.4	25.6
47	8.4091		8.4093		1.5907	9.9999	53	9 29.7	28.8
48	8.4121	30	8.4122	29	1.5878	9.9999	52	31	29
49	8.4150	29	8.4152	30	1.5848	9.9999	51	1 3.1	2.9
		29		29				2 6.2	5.8
50	8.4179		8.4181		1.5819	9.9999	50	3 9.3	8.7
								4 12.4	11.6
								5 15.5	14.5
								6 18.6	17.4
								7 21.7	20.3
								8 24.8	23.2
								9 27.9	26.1
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$		

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
50	8.4179		8.4181		1.5819	9.9999	50	
51	8.4208	29	8.4210	29	1.5790	9.9998	49	
52	8.4237	29	8.4238	28	1.5762	9.9998	48	29 28
53	8.4265	28	8.4267	29	1.5733	9.9998	47	1 2.9 2.8
		28		28				2 5.8 5.6
54	8.4293		8.4295		1.5705	9.9998	46	3 8.7 8.4
55	8.4322	29	8.4323	28	1.5677	9.9998	45	4 11.6 11.2
56	8.4349	27	8.4351	28	1.5649	9.9998	44	5 14.5 14.0
		28		28				6 17.4 16.8
57	8.4377		8.4379		1.5621	9.9998	43	7 20.3 19.6
58	8.4405	28	8.4406	27	1.5594	9.9998	42	8 23.2 22.4
59	8.4432	27	8.4434	28	1.5566	9.9998	41	9 26.1 25.2
60	8.4459	27	8.4461	27	1.5539	9.9998	40	27
61	8.4486	27	8.4488	27	1.5512	9.9998	39	1 2.7 2.7
62	8.4513	27	8.4515	27	1.5485	9.9998	38	2 5.4 5.4
63	8.4540	27	8.4542	27	1.5458	9.9998	37	3 8.1 8.1
		27		26				4 10.8 10.8
64	8.4567		8.4568		1.5432	9.9998	36	5 13.5 13.5
65	8.4593	26	8.4595	27	1.5405	9.9998	35	6 16.2 16.2
66	8.4619	26	8.4621	26	1.5379	9.9998	34	7 18.9 18.9
		26		26				8 21.6 21.6
67	8.4645		8.4647		1.5353	9.9998	33	9 24.3 24.3
68	8.4671	26	8.4673	26	1.5327	9.9998	32	
69	8.4697	26	8.4699	26	1.5301	9.9998	31	26 25
		26		26				1 2.6 2.5
70	8.4723		8.4725		1.5275	9.9998	30	2 5.2 5.0
71	8.4748	25	8.4750	25	1.5250	9.9998	29	3 7.8 7.5
72	8.4773	25	8.4775	25	1.5225	9.9998	28	4 10.4 10.0
73	8.4799	26	8.4801	26	1.5199	9.9998	27	5 13.0 12.5
		25		25				6 15.6 15.0
74	8.4824		8.4826		1.5174	9.9998	26	7 18.2 17.5
75	8.4848	24	8.4851	25	1.5149	9.9998	25	8 20.8 20.0
76	8.4873	25	8.4875	24	1.5125	9.9998	24	9 23.4 22.5
		25		25				
77	8.4898		8.4900		1.5100	9.9998	23	24
78	8.4922	24	8.4924	24	1.5076	9.9998	22	1 2.4 2.4
79	8.4947	25	8.4949	25	1.5051	9.9998	21	2 4.8 4.8
		24		24				3 7.2 7.2
80	8.4971		8.4973		1.5027	9.9998	20	4 9.6 9.6
81	8.4995	24	8.4997	24	1.5003	9.9998	19	5 12.0 12.0
82	8.5019	24	8.5021	24	1.4979	9.9998	18	6 14.4 14.4
83	8.5043	24	8.5045	24	1.4955	9.9998	17	7 16.8 16.8
		23		23				8 19.2 19.2
84	8.5066		8.5068		1.4932	9.9998	16	9 21.6 21.6
85	8.5090	24	8.5092	24	1.4908	9.9998	15	
86	8.5113	23	8.5115	23	1.4885	9.9998	14	23 22
		23		24				1 2.3 2.2
87	8.5136		8.5139		1.4861	9.9998	13	2 4.6 4.4
88	8.5160	24	8.5162	23	1.4838	9.9998	12	3 6.9 6.6
89	8.5183	23	8.5185	23	1.4815	9.9998	11	4 9.2 8.8
		23		23				5 11.5 11.0
90	8.5206		8.5208		1.4792	9.9998	10	6 13.8 13.2
91	8.5228	22	8.5231	23	1.4769	9.9998	09	7 16.1 15.4
92	8.5251	23	8.5253	22	1.4747	9.9998	08	8 18.4 17.6
93	8.5274	22	8.5276	22	1.4724	9.9998	07	9 20.7 19.8
		22		22				
94	8.5296		8.5298		1.4702	9.9998	06	21
95	8.5318	22	8.5321	23	1.4679	9.9997	05	1 2.1 2.1
96	8.5340	22	8.5343	22	1.4657	9.9997	04	2 4.2 4.2
		23		22				3 6.3 6.3
97	8.5363		8.5365		1.4635	9.9997	03	4 8.4 8.4
98	8.5385	22	8.5387	22	1.4613	9.9997	02	5 10.5 10.5
99	8.5406	21	8.5409	22	1.4591	9.9997	01	6 12.6 12.6
		22		22				7 14.7 14.7
100	8.5428		8.5431		1.4569	9.9997	00	8 16.8 16.8
								9 18.9 18.9
$\frac{1^\circ}{100}$	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.		

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
00	8.5428		8.5431		1.4569	9.9997	100	
01	8.5450	22	8.5453	22	1.4547	9.9997	99	
02	8.5471	21	8.5474	21	1.4526	9.9997	98	22
03	8.5493	22	8.5496	22	1.4504	9.9997	97	1 2.2
		21		21				2 4.4
04	8.5514		8.5517		1.4483	9.9997	96	3 6.6
05	8.5535	21	8.5538	21	1.4462	9.9997	95	4 8.8
06	8.5557	22	8.5559	21	1.4441	9.9997	94	5 11.0
		21		21				6 13.2
07	8.5578		8.5580		1.4420	9.9997	93	7 15.4
08	8.5598	20	8.5601	21	1.4399	9.9997	92	8 17.6
09	8.5619	21	8.5622	21	1.4378	9.9997	91	9 19.8
		21		21				
10	8.5640		8.5643		1.4357	9.9997	90	21
11	8.5661	21	8.5664	21	1.4336	9.9997	89	1 2.1
12	8.5681	20	8.5684	20	1.4316	9.9997	88	2 4.2
13	8.5702	21	8.5705	21	1.4295	9.9997	87	3 6.3
		20		20				4 8.4
14	8.5722		8.5725		1.4275	9.9997	86	5 10.5
15	8.5742	20	8.5745	20	1.4255	9.9997	85	6 12.6
16	8.5762	20	8.5765	20	1.4235	9.9997	84	7 14.7
		20		20				8 16.8
17	8.5782		8.5785		1.4215	9.9997	83	9 18.9
18	8.5802	20	8.5805	20	1.4195	9.9997	82	
19	8.5822	20	8.5825	20	1.4175	9.9997	81	20
		20		20				1 2.0
20	8.5842		8.5845		1.4155	9.9997	80	2 4.0
21	8.5862	20	8.5865	20	1.4135	9.9997	79	3 6.0
22	8.5881	19	8.5884	19	1.4116	9.9997	78	4 8.0
23	8.5901	20	8.5904	20	1.4096	9.9997	77	5 10.0
		19		19				6 12.0
24	8.5920		8.5923		1.4077	9.9997	76	7 14.0
25	8.5939	19	8.5943	20	1.4057	9.9997	75	8 16.0
26	8.5959	20	8.5962	19	1.4038	9.9997	74	9 18.0
		19		19				
27	8.5978		8.5981		1.4019	9.9997	73	19
28	8.5997	19	8.6000	19	1.4000	9.9997	72	1 1.9
29	8.6016	19	8.6019	19	1.3981	9.9997	71	2 3.8
		19		19				3 5.7
30	8.6035		8.6038		1.3962	9.9996	70	4 7.6
31	8.6054	19	8.6057	19	1.3943	9.9996	69	5 9.5
32	8.6072	18	8.6076	19	1.3924	9.9996	68	6 11.4
33	8.6091	19	8.6095	19	1.3905	9.9996	67	7 13.3
		19		18				8 15.2
34	8.6110		8.6113		1.3887	9.9996	66	9 17.1
35	8.6128	18	8.6132	19	1.3868	9.9996	65	
36	8.6147	19	8.6150	18	1.3850	9.9996	64	18
		18		19				1 1.8
37	8.6165		8.6169		1.3831	9.9996	63	2 3.6
38	8.6183	18	8.6187	18	1.3813	9.9996	62	3 5.4
39	8.6201	18	8.6205	18	1.3795	9.9996	61	4 7.2
		19		18				5 9.0
40	8.6220		8.6223		1.3777	9.9996	60	6 10.8
41	8.6238	18	8.6242	19	1.3758	9.9996	59	7 12.6
42	8.6256	18	8.6260	18	1.3740	9.9996	58	8 14.4
43	8.6274	18	8.6277	17	1.3723	9.9996	57	9 16.2
		17		18				
44	8.6291		8.6295		1.3705	9.9996	56	17
45	8.6309	18	8.6313	18	1.3687	9.9996	55	1 1.7
46	8.6327	18	8.6331	18	1.3669	9.9996	54	2 3.4
		17		17				3 5.1
47	8.6344		8.6348		1.3652	9.9996	53	4 6.8
48	8.6362	18	8.6366	18	1.3634	9.9996	52	5 8.5
49	8.6379	17	8.6384	18	1.3616	9.9996	51	6 10.2
		18		17				7 11.9
50	8.6397		8.6401		1.3599	9.9996	50	8 13.6
								9 15.3
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
50	8.6397		8.6401		1.3599	9.9996	50	
51	8.6414	17	8.6418	17	1.3582	9.9996	49	
52	8.6431	17	8.6436	18	1.3564	9.9996	48	
53	8.6449	18	8.6453	17	1.3547	9.9996	47	
		17		17				
54	8.6466		8.6470		1.3530	9.9996	46	18
55	8.6483	17	8.6487	17	1.3513	9.9996	45	1 1.8
56	8.6500	17	8.6504	17	1.3496	9.9996	44	2 3.6
		17		17				3 5.4
57	8.6517		8.6521		1.3479	9.9996	43	4 7.2
58	8.6534	17	8.6538	17	1.3462	9.9996	42	5 9.0
59	8.6550	16	8.6555	17	1.3445	9.9996	41	6 10.8
		17		16				7 12.6
60	8.6567		8.6571		1.3429	9.9996	40	8 14.4
61	8.6584	17	8.6588	17	1.3412	9.9995	39	9 16.2
62	8.6600	16	8.6605	17	1.3395	9.9995	38	
63	8.6617	17	8.6621	16	1.3379	9.9995	37	
		16		17				17
64	8.6633		8.6638		1.3362	9.9995	36	1 1.7
65	8.6650	17	8.6654	16	1.3346	9.9995	35	2 3.4
66	8.6666	16	8.6671	17	1.3329	9.9995	34	3 5.1
		16		16				4 6.8
67	8.6682		8.6687		1.3313	9.9995	33	5 8.5
68	8.6699	17	8.6703	16	1.3297	9.9995	32	6 10.2
69	8.6715	16	8.6719	16	1.3281	9.9995	31	7 11.9
		16		17				8 13.6
70	8.6731		8.6736		1.3264	9.9995	30	9 15.3
71	8.6747	16	8.6752	16	1.3248	9.9995	29	
72	8.6763	16	8.6768	16	1.3232	9.9995	28	
73	8.6779	16	8.6784	16	1.3216	9.9995	27	16
		16		16				1 1.6
74	8.6795		8.6800		1.3200	9.9995	26	2 3.2
75	8.6810	15	8.6815	15	1.3185	9.9995	25	3 4.8
76	8.6826	16	8.6831	16	1.3169	9.9995	24	4 6.4
		16		16				5 8.0
77	8.6842		8.6847		1.3153	9.9995	23	6 9.6
78	8.6858	16	8.6863	16	1.3137	9.9995	22	7 11.2
79	8.6873	15	8.6878	15	1.3122	9.9995	21	8 12.8
		16		16				9 14.4
80	8.6889		8.6894		1.3106	9.9995	20	
81	8.6904	15	8.6909	15	1.3091	9.9996	19	
82	8.6920	16	8.6925	16	1.3075	9.9995	18	15
83	8.6935	15	8.6940	15	1.3060	9.9995	17	1 1.5
		15		16				2 3.0
84	8.6950		8.6956		1.3044	9.9995	16	3 4.5
85	8.6965	15	8.6971	15	1.3029	9.9995	15	4 6.0
86	8.6981	16	8.6986	15	1.3014	9.9995	14	5 7.5
		15		15				6 9.0
87	8.6996		8.7001		1.2999	9.9995	13	7 10.5
88	8.7011	15	8.7016	15	1.2984	9.9995	12	8 12.0
89	8.7026	15	8.7031	15	1.2969	9.9994	11	9 13.5
		15		15				
90	8.7041		8.7046		1.2954	9.9994	10	
91	8.7056	15	8.7061	15	1.2939	9.9994	09	14
92	8.7071	15	8.7076	15	1.2924	9.9994	08	1 1.4
93	8.7086	15	8.7091	15	1.2909	9.9994	07	2 2.8
		14		15				3 4.2
94	8.7100		8.7106		1.2894	9.9994	06	4 5.6
95	8.7115	15	8.7121	15	1.2879	9.9994	05	5 7.0
96	8.7130	15	8.7136	15	1.2864	9.9994	04	6 8.4
		14		14				7 9.8
97	8.7144		8.7150		1.2850	9.9994	03	8 11.2
98	8.7159	15	8.7165	15	1.2835	9.9994	02	9 12.6
99	8.7174	15	8.7179	14	1.2821	9.9994	01	
		14		15				
100	8.7188		8.7194		1.2806	9.9994	00	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
00	8.7188		8.7194		1.2806	9.9994	100	
01	8.7202	14	8.7208	14	1.2792	9.9994	99	
02	8.7217	15	8.7223	15	1.2777	9.9994	98	
03	8.7231	14	8.7237	14	1.2763	9.9994	97	
		14		15				15
04	8.7245		8.7252		1.2748	9.9994	96	1 1.5
05	8.7260	15	8.7266	14	1.2734	9.9994	95	2 3.0
06	8.7274	14	8.7280	14	1.2720	9.9994	94	3 4.5
		14		14				4 6.0
07	8.7288		8.7294		1.2706	9.9994	93	5 7.5
08	8.7302	14	8.7308	14	1.2692	9.9994	92	6 9.0
09	8.7316	14	8.7323	15	1.2677	9.9994	91	7 10.5
		14		14				8 12.0
10	8.7330		8.7337		1.2663	9.9994	90	9 13.5
		14		14				
11	8.7344	14	8.7351	14	1.2649	9.9994	89	
12	8.7358	14	8.7365	14	1.2635	9.9994	88	
13	8.7372	14	8.7379	14	1.2621	9.9994	87	
		14		13				
14	8.7386		8.7392		1.2608	9.9993	86	14
15	8.7400	14	8.7406	14	1.2594	9.9993	85	1 1.4
16	8.7413	13	8.7420	14	1.2580	9.9993	84	2 2.8
		14		14				3 4.2
17	8.7427		8.7434		1.2566	9.9993	83	4 5.6
18	8.7441	14	8.7448	14	1.2552	9.9993	82	5 7.0
19	8.7454	13	8.7461	13	1.2539	9.9993	81	6 8.4
		14		14				7 9.8
20	8.7468		8.7475		1.2525	9.9993	80	8 11.2
		14		13				9 12.6
21	8.7482	14	8.7488	13	1.2512	9.9993	79	
22	8.7495	13	8.7502	14	1.2498	9.9993	78	
23	8.7508	13	8.7515	13	1.2485	9.9993	77	
		14		14				
24	8.7522		8.7529		1.2471	9.9993	76	
25	8.7535	13	8.7542	13	1.2458	9.9993	75	
26	8.7549	14	8.7556	14	1.2444	9.9993	74	
		13		13				
27	8.7562		8.7569		1.2431	9.9993	73	13
28	8.7575	13	8.7582	13	1.2418	9.9993	72	1 1.3
29	8.7588	13	8.7596	14	1.2404	9.9993	71	2 2.6
		14		13				3 3.9
30	8.7602		8.7609		1.2391	9.9993	70	4 5.2
		13		13				5 6.5
31	8.7615	13	8.7622	13	1.2378	9.9993	69	6 7.8
32	8.7628	13	8.7635	13	1.2365	9.9993	68	7 9.1
33	8.7641	13	8.7648	13	1.2352	9.9993	67	8 10.4
		13		13				9 11.7
34	8.7654		8.7661		1.2339	9.9993	66	
35	8.7667	13	8.7674	13	1.2326	9.9993	65	
36	8.7680	13	8.7687	13	1.2313	9.9993	64	
		13		13				
37	8.7693		8.7700		1.2300	9.9992	63	
38	8.7705	12	8.7713	13	1.2287	9.9992	62	
39	8.7718	13	8.7726	13	1.2274	9.9992	61	
		13		13				
40	8.7731		8.7739		1.2261	9.9992	60	12
		13		12				1 1.2
41	8.7744	13	8.7751	13	1.2249	9.9992	59	2 2.4
42	8.7756	12	8.7764	13	1.2236	9.9992	58	3 3.6
43	8.7769	13	8.7777	13	1.2223	9.9992	57	4 4.8
		13		13				5 6.0
44	8.7782		8.7790		1.2210	9.9992	56	6 7.2
45	8.7794	12	8.7802	12	1.2198	9.9992	55	7 8.4
46	8.7807	13	8.7815	13	1.2185	9.9992	54	8 9.6
		12		12				9 10.8
47	8.7819		8.7827		1.2173	9.9992	53	
48	8.7832	13	8.7840	13	1.2160	9.9992	52	
49	8.7844	12	8.7852	12	1.2148	9.9992	51	
		13		13				
50	8.7857		8.7865		1.2135	9.9992	50	
		13						
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
50	8.7857		8.7865		1.2135	9.9992	50	
51	8.7869	12	8.7877	12	1.2123	9.9992	49	
52	8.7881	12	8.7890	13	1.2110	9.9992	48	
53	8.7894	13	8.7902	12	1.2098	9.9992	47	
		12		12				
54	8.7906		8.7914		1.2086	9.9992	46	
55	8.7918	12	8.7927	13	1.2073	9.9992	45	
56	8.7930	12	8.7939	12	1.2061	9.9992	44	
		13		12				
57	8.7943		8.7951		1.2049	9.9992	43	
58	8.7955	12	8.7963	12	1.2037	9.9992	42	
59	8.7967	12	8.7975	12	1.2025	9.9991	41	
		12		13				
60	8.7979		8.7988		1.2012	9.9991	40	
61	8.7991	12	8.8000	12	1.2000	9.9991	39	
62	8.8003	12	8.8012	12	1.1988	9.9991	38	
63	8.8015	12	8.8024	12	1.1976	9.9991	37	
		12		12				
64	8.8027		8.8036		1.1964	9.9991	36	
65	8.8039	12	8.8048	12	1.1952	9.9991	35	
66	8.8051	12	8.8059	11	1.1941	9.9991	34	
		11		12				
67	8.8062		8.8071		1.1929	9.9991	33	
68	8.8074	12	8.8083	12	1.1917	9.9991	32	
69	8.8086	12	8.8095	12	1.1905	9.9991	31	
		12		12				
70	8.8098		8.8107		1.1893	9.9991	30	
71	8.8109	11	8.8119	12	1.1881	9.9991	29	
72	8.8121	12	8.8130	11	1.1870	9.9991	28	
73	8.8133	12	8.8142	12	1.1858	9.9991	27	
		11		12				
74	8.8144		8.8154		1.1846	9.9991	26	
75	8.8156	12	8.8165	11	1.1835	9.9991	25	
76	8.8168	12	8.8177	12	1.1823	9.9991	24	
		11		11				
77	8.8179		8.8188		1.1812	9.9991	23	
78	8.8191	12	8.8200	12	1.1800	9.9991	22	
79	8.8202	11	8.8212	12	1.1788	9.9990	21	
		11		11				
80	8.8213		8.8223		1.1777	9.9990	20	
81	8.8225	12	8.8234	11	1.1766	9.9990	19	
82	8.8236	11	8.8246	12	1.1754	9.9990	18	
83	8.8248	12	8.8257	11	1.1743	9.9990	17	
		11		12				
84	8.8259		8.8269		1.1731	9.9990	16	
85	8.8270	11	8.8280	11	1.1720	9.9990	15	
86	8.8281	11	8.8291	11	1.1709	9.9990	14	
		12		11				
87	8.8293		8.8302		1.1698	9.9990	13	
88	8.8304	11	8.8314	12	1.1686	9.9990	12	
89	8.8315	11	8.8325	11	1.1675	9.9990	11	
		11		11				
90	8.8326		8.8336		1.1664	9.9990	10	
91	8.8337	11	8.8347	11	1.1653	9.9990	09	
92	8.8348	11	8.8358	11	1.1642	9.9990	08	
93	8.8359	11	8.8370	12	1.1630	9.9990	07	
		11		11				
94	8.8370		8.8381		1.1619	9.9990	06	
95	8.8381	11	8.8392	11	1.1608	9.9990	05	
96	8.8392	11	8.8403	11	1.1597	9.9990	04	
		11		11				
97	8.8403		8.8414		1.1586	9.9990	03	
98	8.8414	11	8.8425	11	1.1575	9.9990	02	
99	8.8425	11	8.8436	11	1.1564	9.9989	01	
		11		10				
100	8.8436		8.8446		1.1554	9.9989	00	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

13

1 1.3
2 2.6
3 3.9
4 5.2
5 6.5
6 7.8
7 9.1
8 10.4
9 11.7

12

1 1.2
2 2.4
3 3.6
4 4.8
5 6.0
6 7.2
7 8.4
8 9.6
9 10.8

11

1 1.1
2 2.2
3 3.3
4 4.4
5 5.5
6 6.6
7 7.7
8 8.8
9 9.9

10

1 1.0
2 2.0
3 3.0
4 4.0
5 5.0
6 6.0
7 7.0
8 8.0
9 9.0

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
00	8.8436		8.8446		1.1554	9.9989	100	
01	8.8447	11	8.8457	11	1.1543	9.9989	99	
02	8.8457	10	8.8468	11	1.1532	9.9989	98	
03	8.8468	11	8.8479	11	1.1521	9.9989	97	
		11		11				
04	8.8479		8.8490		1.1510	9.9989	96	
05	8.8490	11	8.8501	11	1.1499	9.9989	95	
06	8.8500	10	8.8511	10	1.1489	9.9989	94	
		11		11				
07	8.8511		8.8522		1.1478	9.9989	93	
08	8.8522	11	8.8533	11	1.1467	9.9989	92	
09	8.8532	10	8.8543	10	1.1457	9.9989	91	
		11		11				
10	8.8543		8.8554		1.1446	9.9989	90	
		10		11				
11	8.8553		8.8565		1.1435	9.9989	89	
12	8.8564	11	8.8575	10	1.1425	9.9989	88	
13	8.8575	11	8.8586	11	1.1414	9.9989	87	
		10		10				
14	8.8585		8.8596		1.1404	9.9989	86	
15	8.8595	10	8.8607	11	1.1393	9.9989	85	
16	8.8606	11	8.8617	10	1.1383	9.9989	84	
		10		11				
17	8.8616		8.8628		1.1372	9.9988	83	
18	8.8627	11	8.8638	10	1.1362	9.9988	82	
19	8.8637	10	8.8649	11	1.1351	9.9988	81	
		10		10				
20	8.8647		8.8659		1.1341	9.9988	80	
		11		10				
21	8.8658		8.8669		1.1331	9.9988	79	
22	8.8668	10	8.8680	11	1.1320	9.9988	78	
23	8.8678	10	8.8690	10	1.1310	9.9988	77	
		10		10				
24	8.8688		8.8700		1.1300	9.9988	76	
25	8.8699	11	8.8711	11	1.1289	9.9988	75	
26	8.8709	10	8.8721	10	1.1279	9.9988	74	
		10		10				
27	8.8719		8.8731		1.1269	9.9988	73	
28	8.8729	10	8.8741	10	1.1259	9.9988	72	
29	8.8739	10	8.8751	10	1.1249	9.9988	71	
		10		11				
30	8.8749		8.8762		1.1238	9.9988	70	
		10		10				
31	8.8759		8.8772		1.1228	9.9988	69	
32	8.8769	10	8.8782	10	1.1218	9.9988	68	
33	8.8780	11	8.8792	10	1.1208	9.9988	67	
		10		10				
34	8.8790		8.8802		1.1198	9.9988	66	
35	8.8799	9	8.8812	10	1.1188	9.9987	65	
36	8.8809	10	8.8822	10	1.1178	9.9987	64	
		10		10				
37	8.8819		8.8832		1.1168	9.9987	63	
38	8.8829	10	8.8842	10	1.1158	9.9987	62	
39	8.8839	10	8.8852	10	1.1148	9.9987	61	
		10		10				
40	8.8849		8.8862		1.1138	9.9987	60	
		10		10				
41	8.8859		8.8872		1.1128	9.9987	59	
42	8.8869	10	8.8882	10	1.1118	9.9987	58	
43	8.8878	9	8.8891	9	1.1109	9.9987	57	
		10		10				
44	8.8888		8.8901		1.1099	9.9987	56	
45	8.8898	10	8.8911	10	1.1089	9.9987	55	
46	8.8908	10	8.8921	10	1.1079	9.9987	54	
		9		10				
47	8.8917		8.8931		1.1069	9.9987	53	
48	8.8927	10	8.8940	9	1.1060	9.9987	52	
49	8.8937	10	8.8950	10	1.1050	9.9987	51	
		9		10				
50	8.8946		8.8960		1.1040	9.9987	50	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

11

1 1.1
2 2.2
3 3.3
4 4.4
5 5.5
6 6.6
7 7.7
8 8.8
9 9.9

10

1 1.0
2 2.0
3 3.0
4 4.0
5 5.0
6 6.0
7 7.0
8 8.0
9 9.0

9

1 0.9
2 1.8
3 2.7
4 3.6
5 4.5
6 5.4
7 6.3
8 7.2
9 8.1

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
50	8.8946		8.8960		1.1040	9.9987	50	
51	8.8956	10	8.8970	10	1.1030	9.9987	49	
52	8.8966	10	8.8979	9	1.1021	9.9986	48	
53	8.8975	9	8.8989	10	1.1011	9.9986	47	
		10		9				
54	8.8985		8.8998		1.1002	9.9986	46	
55	8.8994	9	8.9008	10	1.0992	9.9986	45	
56	8.9004	10	8.9018	10	1.0982	9.9986	44	
		9		9				
57	8.9013		8.9027		1.0973	9.9986	43	
58	8.9023	10	8.9037	10	1.0963	9.9986	42	
59	8.9032	9	8.9046	9	1.0954	9.9986	41	
		10		10				
60	8.9042		8.9056		1.0944	9.9986	40	
		9		9				
61	8.9051		8.9065		1.0935	9.9986	39	
62	8.9060	9	8.9075	10	1.0925	9.9986	38	
63	8.9070	10	8.9084	9	1.0916	9.9986	37	
		9		9				
64	8.9079		8.9093		1.0907	9.9986	36	
65	8.9089	10	8.9103	10	1.0897	9.9986	35	
66	8.9098	9	8.9112	9	1.0888	9.9986	34	
		9		10				
67	8.9107		8.9122		1.0878	9.9986	33	
68	8.9116	9	8.9131	9	1.0869	9.9985	32	
69	8.9126	10	8.9140	9	1.0860	9.9985	31	
		9		10				
70	8.9135		8.9150		1.0850	9.9985	30	
		9		9				
71	8.9144		8.9159		1.0841	9.9985	29	
72	8.9153	9	8.9168	9	1.0832	9.9985	28	
73	8.9162	9	8.9177	9	1.0823	9.9985	27	
		10		9				
74	8.9172		8.9186		1.0814	9.9985	26	
75	8.9181	9	8.9196	10	1.0804	9.9985	25	
76	8.9190	9	8.9205	9	1.0795	9.9985	24	
		9		9				
77	8.9199		8.9214		1.0786	9.9985	23	
78	8.9208	9	8.9223	9	1.0777	9.9985	22	
79	8.9217	9	8.9232	9	1.0768	9.9985	21	
		9		9				
80	8.9226		8.9241		1.0759	9.9985	20	
		9		9				
81	8.9235		8.9250		1.0750	9.9985	19	
82	8.9244	9	8.9260	10	1.0740	9.9985	18	
83	8.9253	9	8.9269	9	1.0731	9.9985	17	
		9		9				
84	8.9262		8.9278		1.0722	9.9984	16	
85	8.9271	9	8.9287	9	1.0713	9.9984	15	
86	8.9280	9	8.9296	9	1.0704	9.9984	14	
		9		9				
87	8.9289		8.9305		1.0695	9.9984	13	
88	8.9298	9	8.9313	8	1.0687	9.9984	12	
89	8.9307	9	8.9322	9	1.0678	9.9984	11	
		8		9				
90	8.9315		8.9331		1.0669	9.9984	10	
		9		9				
91	8.9324		8.9340		1.0660	9.9984	09	
92	8.9333	9	8.9349	9	1.0651	9.9984	08	
93	8.9342	9	8.9358	9	1.0642	9.9984	07	
		9		9				
94	8.9351		8.9367		1.0633	9.9984	06	
95	8.9359	8	8.9376	9	1.0624	9.9984	05	
96	8.9368	9	8.9384	8	1.0616	9.9984	04	
		9		9				
97	8.9377		8.9393		1.0607	9.9984	03	
98	8.9386	9	8.9402	9	1.0598	9.9984	02	
99	8.9394	8	8.9411	9	1.0589	9.9984	01	
		9		9				
100	8.9403		8.9420		1.0580	9.9983	00	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

10
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0

9
0.9
1.8
2.7
3.6
4.5
5.4
6.3
7.2
8.1

8
0.8
1.6
2.4
3.2
4.0
4.8
5.6
6.4
7.2

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
00	8.9403		8.9420		1.0580	9.9983	100	
01	8.9412	9	8.9428	8	1.0572	9.9983	99	
02	8.9420	8	8.9437	9	1.0563	9.9983	98	
03	8.9429	9	8.9446	9	1.0554	9.9983	97	
04	8.9437	8	8.9454	8	1.0546	9.9983	96	
05	8.9446	9	8.9463	9	1.0537	9.9983	95	
06	8.9455	9	8.9472	9	1.0528	9.9983	94	
07	8.9463	8	8.9480	8	1.0520	9.9983	93	
08	8.9472	9	8.9489	9	1.0511	9.9983	92	
09	8.9480	8	8.9497	8	1.0503	9.9983	91	
10	8.9489	9	8.9506	9	1.0494	9.9983	90	
11	8.9497	8	8.9515	9	1.0485	9.9983	89	
12	8.9506	9	8.9523	8	1.0477	9.9983	88	1 0.9
13	8.9514	8	8.9532	9	1.0468	9.9983	87	2 1.8
14	8.9523	9	8.9540	8	1.0460	9.9983	86	3 2.7
15	8.9531	8	8.9549	9	1.0451	9.9982	85	4 3.6
16	8.9539	8	8.9557	8	1.0443	9.9982	84	5 4.5
17	8.9548	9	8.9565	8	1.0435	9.9982	83	6 5.4
18	8.9556	8	8.9574	9	1.0426	9.9982	82	7 6.3
19	8.9565	9	8.9582	8	1.0418	9.9982	81	8 7.2
20	8.9573	8	8.9591	9	1.0409	9.9982	80	9 8.1
21	8.9581	8	8.9599	8	1.0401	9.9982	79	
22	8.9589	8	8.9608	9	1.0392	9.9982	78	
23	8.9598	9	8.9616	8	1.0384	9.9982	77	
24	8.9606	8	8.9624	8	1.0376	9.9982	76	
25	8.9614	8	8.9633	9	1.0367	9.9982	75	
26	8.9623	9	8.9641	8	1.0359	9.9982	74	
27	8.9631	8	8.9649	8	1.0351	9.9982	73	
28	8.9639	8	8.9657	8	1.0343	9.9982	72	
29	8.9647	8	8.9666	9	1.0334	9.9981	71	
30	8.9655	8	8.9674	8	1.0326	9.9981	70	
31	8.9664	9	8.9682	8	1.0318	9.9981	69	
32	8.9672	8	8.9690	8	1.0310	9.9981	68	8
33	8.9680	8	8.9699	9	1.0301	9.9981	67	1 0.8
34	8.9688	8	8.9707	8	1.0293	9.9981	66	2 1.6
35	8.9696	8	8.9715	8	1.0285	9.9981	65	3 2.4
36	8.9704	8	8.9723	8	1.0277	9.9981	64	4 3.2
37	8.9712	8	8.9731	8	1.0269	9.9981	63	5 4.0
38	8.9720	8	8.9739	8	1.0261	9.9981	62	6 4.8
39	8.9728	8	8.9747	8	1.0253	9.9981	61	7 5.6
40	8.9736	8	8.9756	9	1.0244	9.9981	60	8 6.4
41	8.9744	8	8.9764	8	1.0236	9.9981	59	9 7.2
42	8.9752	8	8.9772	8	1.0228	9.9981	58	
43	8.9760	8	8.9780	8	1.0220	9.9980	57	
44	8.9768	8	8.9788	8	1.0212	9.9980	56	
45	8.9776	8	8.9796	8	1.0204	9.9980	55	
46	8.9784	8	8.9804	8	1.0196	9.9980	54	
47	8.9792	8	8.9812	8	1.0188	9.9980	53	
48	8.9800	8	8.9820	8	1.0180	9.9980	52	
49	8.9808	8	8.9828	8	1.0172	9.9980	51	
50	8.9816	8	8.9836	8	1.0164	9.9980	50	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
50	8.9816		8.9836		1.0164	9.9980	50	
51	8.9824	8	8.9844	8	1.0156	9.9980	49	
52	8.9831	7	8.9852	8	1.0148	9.9980	48	
53	8.9839	8	8.9860	8	1.0140	9.9980	47	
		8		7				
54	8.9847		8.9867		1.0133	9.9980	46	
55	8.9855	8	8.9875	8	1.0125	9.9980	45	
56	8.9863	8	8.9883	8	1.0117	9.9980	44	
		7		8				
57	8.9870		8.9891		1.0109	9.9979	43	
58	8.9878	8	8.9899	8	1.0101	9.9979	42	
59	8.9886	8	8.9907	8	1.0093	9.9979	41	
		8		8				
60	8.9894		8.9915		1.0085	9.9979	40	
		7		7				
61	8.9901		8.9922		1.0078	9.9979	39	
62	8.9909	8	8.9930	8	1.0070	9.9979	38	
63	8.9917	8	8.9938	8	1.0062	9.9979	37	
		8		8				
64	8.9925		8.9946		1.0054	9.9979	36	
65	8.9932	7	8.9953	7	1.0047	9.9979	35	
66	8.9940	8	8.9961	8	1.0039	9.9979	34	
		8		8				
67	8.9948		8.9969		1.0031	9.9979	33	
68	8.9955	7	8.9977	8	1.0023	9.9979	32	
69	8.9963	8	8.9984	7	1.0016	9.9979	31	
		7		8				
70	8.9970		8.9992		1.0008	9.9978	30	
		8		8				
71	8.9978		9.0000		1.0000	9.9978	29	
72	8.9986	8	9.0007	7	0.9993	9.9978	28	
73	8.9993	7	9.0015	8	0.9985	9.9978	27	
		8		7				
74	9.0001		9.0022		0.9978	9.9978	26	
75	9.0008	7	9.0030	8	0.9970	9.9978	25	
76	9.0016	8	9.0038	8	0.9962	9.9978	24	
		7		7				
77	9.0023		9.0045		0.9955	9.9978	23	
78	9.0031	8	9.0053	8	0.9947	9.9978	22	
79	9.0038	7	9.0060	7	0.9940	9.9978	21	
		8		8				
80	9.0046		9.0068		0.9932	9.9978	20	
		7		7				
81	9.0053		9.0075		0.9925	9.9978	19	
82	9.0061	8	9.0083	8	0.9917	9.9978	18	
83	9.0068	7	9.0090	7	0.9910	9.9977	17	
		7		8				
84	9.0075		9.0098		0.9902	9.9977	16	
85	9.0083	8	9.0105	7	0.9895	9.9977	15	
86	9.0090	7	9.0113	8	0.9887	9.9977	14	
		8		7				
87	9.0098		9.0120		0.9880	9.9977	13	
88	9.0105	7	9.0128	8	0.9872	9.9977	12	
89	9.0112	7	9.0135	7	0.9865	9.9977	11	
		8		8				
90	9.0120		9.0143		0.9857	9.9977	10	
		7		7				
91	9.0127		9.0150		0.9850	9.9977	09	
92	9.0134	7	9.0157	7	0.9843	9.9977	08	
93	9.0142	8	9.0165	8	0.9835	9.9977	07	
		7		7				
94	9.0149		9.0172		0.9828	9.9977	06	
95	9.0156	7	9.0180	8	0.9820	9.9977	05	
96	9.0163	7	9.0187	7	0.9813	9.9976	04	
		8		7				
97	9.0171		9.0194		0.9806	9.9976	03	
98	9.0178	7	9.0202	8	0.9798	9.9976	02	
99	9.0185	7	9.0209	7	0.9791	9.9976	01	
		7		7				
100	9.0192		9.0216		0.9784	9.9976	00	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

8
0.8
1.6
2.4
3.2
4.0
4.8
5.6
6.4
7.2

7
0.7
1.4
2.1
2.8
3.5
4.2
4.9
5.6
6.3

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
00	9.0192		9.0216		0.9784	9.9976	100	
01	9.0200	8	9.0223	7	0.9777	9.9976	99	
02	9.0207	7	9.0231	8	0.9769	9.9976	98	
03	9.0214	7	9.0238	7	0.9762	9.9976	97	
		7		7				
04	9.0221		9.0245		0.9755	9.9976	96	
05	9.0228	7	9.0253	8	0.9747	9.9976	95	
06	9.0235	7	9.0260	7	0.9740	9.9976	94	
		8		7				
07	9.0243		9.0267		0.9733	9.9976	93	
08	9.0250	7	9.0274	7	0.9726	9.9976	92	
09	9.0257	7	9.0281	7	0.9719	9.9975	91	
10	9.0264	7	9.0289	8	0.9711	9.9975	90	
11	9.0271	7	9.0296	7	0.9704	9.9975	89	1 0.8
12	9.0278	7	9.0303	7	0.9697	9.9975	88	2 1.6
13	9.0285	7	9.0310	7	0.9690	9.9975	87	3 2.4
		7		7				4 3.2
14	9.0292		9.0317		0.9683	9.9975	86	5 4.0
15	9.0299	7	9.0324	7	0.9676	9.9975	85	6 4.8
16	9.0306	7	9.0331	7	0.9669	9.9975	84	7 5.6
		7		7				8 6.4
17	9.0313		9.0338		0.9662	9.9975	83	9 7.2
18	9.0320	7	9.0346	8	0.9654	9.9975	82	
19	9.0327	7	9.0353	7	0.9647	9.9975	81	
20	9.0334	7	9.0360	7	0.9640	9.9975	80	
21	9.0341	7	9.0367	7	0.9633	9.9974	79	
22	9.0348	7	9.0374	7	0.9626	9.9974	78	7
23	9.0355	7	9.0381	7	0.9619	9.9974	77	1 0.7
		7		7				2 1.4
24	9.0362		9.0388		0.9612	9.9974	76	3 2.1
25	9.0369	7	9.0395	7	0.9605	9.9974	75	4 2.8
26	9.0376	7	9.0402	7	0.9598	9.9974	74	5 3.5
		7		7				6 4.2
27	9.0383		9.0409		0.9591	9.9974	73	7 4.9
28	9.0390	7	9.0416	7	0.9584	9.9974	72	8 5.6
29	9.0397	7	9.0423	7	0.9577	9.9974	71	9 6.3
30	9.0403	6	9.0430	7	0.9570	9.9974	70	
31	9.0410	7	9.0437	7	0.9563	9.9974	69	
32	9.0417	7	9.0444	7	0.9556	9.9974	68	
33	9.0424	7	9.0451	7	0.9549	9.9973	67	
		7		6				
34	9.0431		9.0457		0.9543	9.9973	66	
35	9.0438	7	9.0464	7	0.9536	9.9973	65	
36	9.0444	6	9.0471	7	0.9529	9.9973	64	6
		7		7				1 0.6
37	9.0451		9.0478		0.9522	9.9973	63	2 1.2
38	9.0458	7	9.0485	7	0.9515	9.9973	62	3 1.8
39	9.0465	7	9.0492	7	0.9508	9.9973	61	4 2.4
		7		7				5 3.0
40	9.0472	6	9.0499	7	0.9501	9.9973	60	6 3.6
41	9.0478	7	9.0506	7	0.9494	9.9973	59	7 4.2
42	9.0485	7	9.0512	6	0.9488	9.9973	58	8 4.8
43	9.0492	7	9.0519	7	0.9481	9.9973	57	9 5.4
		6		7				
44	9.0498		9.0526		0.9474	9.9973	56	
45	9.0505	7	9.0533	6	0.9467	9.9972	55	
46	9.0512	7	9.0540	7	0.9460	9.9972	54	
		7		6				
47	9.0519		9.0546		0.9454	9.9972	53	
48	9.0525	6	9.0553	7	0.9447	9.9972	52	
49	9.0532	7	9.0560	7	0.9440	9.9972	51	
50	9.0539	7	9.0567	7	0.9433	9.9972	50	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
50	9.0539		9.0567		0.9433	9.9972	50	
51	9.0545	6	9.0573	6	0.9427	9.9972	49	
52	9.0552	7	9.0580	7	0.9420	9.9972	48	
53	9.0558	6	9.0587	7	0.9413	9.9972	47	
		7		6				
54	9.0565	7	9.0593	7	0.9407	9.9972	46	
55	9.0572	7	9.0600	7	0.9400	9.9972	45	
56	9.0578	6	9.0607	7	0.9393	9.9971	44	
		7		7				
57	9.0585		9.0614		0.9386	9.9971	43	
58	9.0591	6	9.0620	6	0.9380	9.9971	42	
59	9.0598	7	9.0627	7	0.9373	9.9971	41	
		7		6				
60	9.0605		9.0633		0.9367	9.9971	40	
		6		7				
61	9.0611	7	9.0640	7	0.9360	9.9971	39	
62	9.0618	7	9.0647	7	0.9353	9.9971	38	
63	9.0624	6	9.0653	6	0.9347	9.9971	37	
		7		7				
64	9.0631		9.0660		0.9340	9.9971	36	
65	9.0637	6	9.0667	7	0.9333	9.9971	35	
66	9.0644	7	9.0673	6	0.9327	9.9971	34	
		6		7				
67	9.0650		9.0680		0.9320	9.9971	33	
68	9.0657	7	9.0686	6	0.9314	9.9970	32	
69	9.0663	6	9.0693	7	0.9307	9.9970	31	
		7		6				
70	9.0670		9.0699		0.9301	9.9970	30	
		6		7				
71	9.0676	7	9.0706	6	0.9294	9.9970	29	
72	9.0683	7	9.0712	6	0.9288	9.9970	28	
73	9.0689	6	9.0719	7	0.9281	9.9970	27	
		6		6				
74	9.0695		9.0725		0.9275	9.9970	26	
75	9.0702	7	9.0732	7	0.9268	9.9970	25	
76	9.0708	6	9.0738	6	0.9262	9.9970	24	
		7		7				
77	9.0715		9.0745		0.9255	9.9970	23	
78	9.0721	6	9.0751	6	0.9249	9.9970	22	
79	9.0727	6	9.0758	7	0.9242	9.9969	21	
		7		6				
80	9.0734		9.0764		0.9236	9.9969	20	
		6		7				
81	9.0740	6	9.0771	6	0.9229	9.9969	19	
82	9.0746	6	9.0777	6	0.9223	9.9969	18	
83	9.0753	7	9.0784	7	0.9216	9.9969	17	
		6		6				
84	9.0759		9.0790		0.9210	9.9969	16	
85	9.0765	6	9.0796	6	0.9204	9.9969	15	
86	9.0772	7	9.0803	7	0.9197	9.9969	14	
		6		6				
87	9.0778		9.0809		0.9191	9.9969	13	
88	9.0784	6	9.0816	7	0.9184	9.9969	12	
89	9.0790	6	9.0822	6	0.9178	9.9969	11	
		7		6				
90	9.0797		9.0828		0.9172	9.9968	10	
		6		7				
91	9.0803	6	9.0835	6	0.9165	9.9968	09	
92	9.0809	7	9.0841	6	0.9159	9.9968	08	
93	9.0816	6	9.0847	7	0.9153	9.9968	07	
		6		6				
94	9.0822		9.0854		0.9146	9.9968	06	
95	9.0828	6	9.0860	6	0.9140	9.9968	05	
96	9.0834	6	9.0866	6	0.9134	9.9968	04	
		6		7				
97	9.0840		9.0873		0.9127	9.9968	03	
98	9.0847	7	9.0879	6	0.9121	9.9968	02	
99	9.0853	6	9.0885	6	0.9115	9.9968	01	
		6		6				
100	9.0859		9.0891		0.9109	9.9968	00	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

7
1 0.7
2 1.4
3 2.1
4 2.8
5 3.5
6 4.2
7 4.9
8 5.6
9 6.3

6
1 0.6
2 1.2
3 1.8
4 2.4
5 3.0
6 3.6
7 4.2
8 4.8
9 5.4

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
00	9.0859		9.0891		0.9109	9.9968	100	
01	9.0865	6	9.0898	7	0.9102	9.9967	99	
02	9.0871	6	9.0904	6	0.9096	9.9967	98	
03	9.0877	6	9.0910	6	0.9090	9.9967	97	
		7		6				
04	9.0884		9.0916		0.9084	9.9967	96	
05	9.0890	6	9.0923	7	0.9077	9.9967	95	
06	9.0896	6	9.0929	6	0.9071	9.9967	94	
		6		6				
07	9.0902		9.0935		0.9065	9.9967	93	
08	9.0908	6	9.0941	6	0.9059	9.9967	92	
09	9.0914	6	9.0947	6	0.9053	9.9967	91	
		6		7				
10	9.0920		9.0954		0.9046	9.9967	90	
		6		6				1 0.7
11	9.0926	6	9.0960	6	0.9040	9.9966	89	2 1.4
12	9.0932	6	9.0966	6	0.9034	9.9966	88	3 2.1
13	9.0938	6	9.0972	6	0.9028	9.9966	87	4 2.8
		7		6				5 3.5
14	9.0945		9.0978		0.9022	9.9966	86	6 4.2
15	9.0951	6	9.0984	6	0.9016	9.9966	85	7 4.9
16	9.0957	6	9.0991	7	0.9009	9.9966	84	8 5.6
		6		6				9 6.3
17	9.0963		9.0997		0.9003	9.9966	83	
18	9.0969	6	9.1003	6	0.8997	9.9966	82	
19	9.0975	6	9.1009	6	0.8991	9.9966	81	
		6		6				
20	9.0981		9.1015		0.8985	9.9966	80	
		6		6				
21	9.0987	6	9.1021	6	0.8979	9.9966	79	
22	9.0993	6	9.1027	6	0.8973	9.9965	78	
23	9.0999	6	9.1033	6	0.8967	9.9965	77	
		6		6				1 0.6
24	9.1005		9.1039		0.8961	9.9965	76	2 1.2
25	9.1011	6	9.1045	6	0.8955	9.9965	75	3 1.8
26	9.1017	6	9.1051	6	0.8949	9.9965	74	4 2.4
		5		7				5 3.0
27	9.1022		9.1058		0.8942	9.9965	73	6 3.6
28	9.1028	6	9.1064	6	0.8936	9.9965	72	7 4.2
29	9.1034	6	9.1070	6	0.8930	9.9965	71	8 4.8
		6		6				9 5.4
30	9.1040		9.1076		0.8924	9.9965	70	
		6		6				
31	9.1046	6	9.1082	6	0.8918	9.9965	69	
32	9.1052	6	9.1088	6	0.8912	9.9964	68	
33	9.1058	6	9.1094	6	0.8906	9.9964	67	
		6		6				
34	9.1064		9.1100		0.8900	9.9964	66	
35	9.1070	6	9.1106	6	0.8894	9.9964	65	
36	9.1076	6	9.1112	6	0.8888	9.9964	64	
		5		5				1 0.5
37	9.1081		9.1117		0.8883	9.9964	63	2 1.0
38	9.1087	6	9.1123	6	0.8877	9.9964	62	3 1.5
39	9.1093	6	9.1129	6	0.8871	9.9964	61	4 2.0
		6		6				5 2.5
								6 3.0
40	9.1099		9.1135		0.8865	9.9964	60	7 3.5
		6		6				8 4.0
41	9.1105	6	9.1141	6	0.8859	9.9964	59	9 4.5
42	9.1111	6	9.1147	6	0.8853	9.9963	58	
43	9.1116	5	9.1153	6	0.8847	9.9963	57	
		6		6				
44	9.1122		9.1159		0.8841	9.9963	56	
45	9.1128	6	9.1165	6	0.8835	9.9963	55	
46	9.1134	6	9.1171	6	0.8829	9.9963	54	
		6		6				
47	9.1140		9.1177		0.8823	9.9963	53	
48	9.1145	5	9.1183	6	0.8817	9.9963	52	
49	9.1151	6	9.1188	5	0.8812	9.9963	51	
		6		6				
50	9.1157		9.1194		0.8806	9.9963	50	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

$\frac{1^\circ}{100}$	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.		P. P.
50	9.1157		9.1194		0.8806	9.9963	50	
51	9.1163	6	9.1200	6	0.8800	9.9963	49	
52	9.1168	5	9.1206	6	0.8794	9.9962	48	
53	9.1174	6	9.1212	6	0.8788	9.9962	47	
54	9.1180		9.1218		0.8782	9.9962	46	
55	9.1186	6	9.1223	5	0.8777	9.9962	45	
56	9.1191	5	9.1229	6	0.8771	9.9962	44	
		6		6				
57	9.1197		9.1235		0.8765	9.9962	43	
58	9.1203	6	9.1241	6	0.8759	9.9962	42	
59	9.1208	5	9.1247	6	0.8753	9.9962	41	
		6		5				
60	9.1214		9.1252		0.8748	9.9962	40	
61	9.1220	6	9.1258	6	0.8742	9.9962	39	
62	9.1226	6	9.1264	6	0.8736	9.9961	38	
63	9.1231	5	9.1270	6	0.8730	9.9961	37	
		6		6				
64	9.1237		9.1276		0.8724	9.9961	36	
65	9.1242	5	9.1281	5	0.8719	9.9961	35	
66	9.1248	6	9.1287	6	0.8713	9.9961	34	
		6		6				
67	9.1254		9.1293		0.8707	9.9961	33	
68	9.1259	5	9.1299	6	0.8701	9.9961	32	
69	9.1265	6	9.1304	5	0.8696	9.9961	31	
		6		6				
70	9.1271		9.1310		0.8690	9.9951	30	
71	9.1276	5	9.1316	6	0.8684	9.9961	29	
72	9.1282	6	9.1321	5	0.8679	9.9960	28	
73	9.1287	5	9.1327	6	0.8673	9.9960	27	
		6		6				
74	9.1293		9.1333		0.8667	9.9960	26	
75	9.1299	6	9.1338	5	0.8662	9.9960	25	
76	9.1304	5	9.1344	6	0.8656	9.9960	24	
		6		6				
77	9.1310		9.1350		0.8650	9.9960	23	
78	9.1315	5	9.1355	5	0.8645	9.9960	22	
79	9.1321	6	9.1361	6	0.8639	9.9960	21	
		5		6				
80	9.1326		9.1367		0.8633	9.9960	20	
81	9.1332	6	9.1372	5	0.8628	9.9960	19	
82	9.1337	5	9.1378	6	0.8622	9.9959	18	
83	9.1343	6	9.1384	6	0.8616	9.9959	17	
		5		5				
84	9.1348		9.1389		0.8611	9.9959	16	
85	9.1354	6	9.1395	6	0.8605	9.9959	15	
86	9.1359	5	9.1400	5	0.8600	9.9959	14	
		6		6				
87	9.1365		9.1406		0.8594	9.9959	13	
88	9.1370	5	9.1412	6	0.8588	9.9959	12	
89	9.1376	6	9.1417	5	0.8583	9.9959	11	
		5		6				
90	9.1381		9.1423		0.8577	9.9959	10	
91	9.1387	6	9.1428	5	0.8572	9.9958	09	
92	9.1392	5	9.1434	6	0.8566	9.9958	08	
93	9.1398	6	9.1439	5	0.8561	9.9958	07	
		5		6				
94	9.1403		9.1445		0.8555	9.9958	06	
95	9.1409	6	9.1450	5	0.8550	9.9958	05	
96	9.1414	5	9.1456	6	0.8544	9.9958	04	
		5		5				
97	9.1419		9.1461		0.8539	9.9958	03	
98	9.1425	6	9.1467	6	0.8533	9.9958	02	
99	9.1430	5	9.1473	6	0.8527	9.9958	01	
		6		5				
100	9.1436		9.1478		0.8522	9.9958	00	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	$\frac{1^\circ}{100}$	

6
1 0.6
2 1.2
3 1.8
4 2.4
5 3.0
6 3.6
7 4.2
8 4.8
9 5.4

5
1 0.5
2 1.0
3 1.5
4 2.0
5 2.5
6 3.0
7 3.5
8 4.0
9 4.5

o	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.	d.		P. P.
5.0	8.9403		8.9420		1.0580	9.9983		85.0	62 61 60
1	8.9489	86	8.9506	86	1.0494	9.9983	0	9	1 6.2 6.1 6.0
2	8.9573	84	8.9591	85	1.0409	9.9982	1	8	2 12.4 12.2 12.0
3	8.9655	82	8.9674	83	1.0326	9.9981	1	7	3 18.6 18.3 18.0
		81		82			0		4 24.8 24.4 24.0
4	8.9736		8.9756		1.0244	9.9981		6	5 31.0 30.5 30.0
5	8.9816	80	8.9836	80	1.0164	9.9980	1	5	6 37.2 36.6 36.0
6	8.9894	78	8.9915	79	1.0085	9.9979	1	4	7 43.4 42.7 42.0
		76		77			1		8 49.6 48.8 48.0
7	8.9970		8.9992		1.0008	9.9978		3	9 55.8 54.9 54.0
8	9.0046	76	9.0068	76	0.9932	9.9978	0	2	
9	9.0120	74	9.0143	75	0.9857	9.9977	1	1	1 5.9 5.8 5.7
		72		73			1		2 11.8 11.6 11.4
6.0	9.0192		9.0216		0.9784	9.9976		84.0	3 17.7 17.4 17.1
1	9.0264	72	9.0289	73	0.9711	9.9975	1	9	4 23.6 23.2 22.8
2	9.0334	70	9.0360	71	0.9640	9.9975	0	8	5 29.5 29.0 28.5
3	9.0403	69	9.0430	70	0.9570	9.9974	1	7	6 35.4 34.8 34.2
		69		69			1		7 41.3 40.6 39.9
4	9.0472		9.0499		0.9501	9.9973		6	8 47.2 46.4 45.6
5	9.0539	67	9.0567	68	0.9433	9.9972	1	5	9 53.1 52.2 51.3
6	9.0605	66	9.0633	66	0.9367	9.9971	1	4	
		65		66			1		1 5.6 5.5 5.4
7	9.0670		9.0699		0.9301	9.9970		3	2 11.2 11.0 10.8
8	9.0734	64	9.0764	65	0.9236	9.9969	1	2	3 16.8 16.5 16.2
9	9.0797	63	9.0828	64	0.9172	9.9968	1	1	4 22.4 22.0 21.6
		62		63			0		5 28.0 27.5 27.0
7.0	9.0859		9.0891		0.9109	9.9968		83.0	6 33.6 33.0 32.4
1	9.0920	61	9.0954	63	0.9046	9.9967	1	9	7 39.2 38.5 37.8
2	9.0981	61	9.1015	61	0.8985	9.9966	1	8	8 44.8 44.0 43.2
3	9.1040	59	9.1076	61	0.8924	9.9965	1	7	9 50.4 49.5 48.6
		59		59			1		
4	9.1099		9.1135		0.8865	9.9964		6	1 5.3 5.2 5.1
5	9.1157	58	9.1194	59	0.8806	9.9963	1	5	2 10.6 10.4 10.2
6	9.1214	57	9.1252	58	0.8748	9.9962	1	4	3 15.9 15.6 15.3
		57		58			1		4 21.2 20.8 20.4
7	9.1271		9.1310		0.8690	9.9961		3	5 26.5 26.0 25.5
8	9.1326	55	9.1367	57	0.8633	9.9960	1	2	6 31.8 31.2 30.6
9	9.1381	55	9.1423	56	0.8577	9.9959	1	1	7 37.1 36.4 35.7
		55		55			1		8 42.4 41.6 40.8
8.0	9.1436		9.1478		0.8522	9.9958		82.0	9 47.7 46.8 45.9
1	9.1489	53	9.1533	55	0.8467	9.9956	2	9	
2	9.1542	53	9.1587	54	0.8413	9.9955	1	8	1 5.0 4.9 4.8
3	9.1594	52	9.1640	53	0.8360	9.9954	1	7	2 10.0 9.8 9.6
		52		53			1		3 15.0 14.7 14.4
4	9.1646		9.1693		0.8307	9.9953		6	4 20.0 19.6 19.2
5	9.1697	51	9.1745	52	0.8255	9.9952	1	5	5 25.0 24.5 24.0
6	9.1747	50	9.1797	52	0.8203	9.9951	1	4	6 30.0 29.4 28.8
		50		51			1		7 35.0 34.3 33.6
7	9.1797		9.1848		0.8152	9.9950		3	8 40.0 39.2 38.4
8	9.1847	50	9.1898	50	0.8102	9.9949	1	2	9 45.0 44.1 43.2
9	9.1895	48	9.1948	50	0.8052	9.9947	2	1	
		48		49			1		1 4.7 4.6 4.5
9.0	9.1943		9.1997		0.8003	9.9946		81.0	2 9.4 9.2 9.0
1	9.1991	48	9.2046	49	0.7954	9.9945	1	9	3 14.1 13.8 13.5
2	9.2038	47	9.2094	48	0.7906	9.9944	1	8	4 18.8 18.4 18.0
3	9.2085	46	9.2142	48	0.7858	9.9943	1	7	5 23.5 23.0 22.5
		46		47			2		6 28.2 27.6 27.0
4	9.2131		9.2189		0.7811	9.9941		6	7 32.9 32.2 31.5
5	9.2176	45	9.2236	47	0.7764	9.9940	1	5	8 37.6 36.8 36.0
6	9.2221	45	9.2282	46	0.7718	9.9939	1	4	9 42.3 41.4 40.5
		45		46			2		
7	9.2266		9.2328		0.7672	9.9937		3	1 4.4 4.3 4.2
8	9.2310	44	9.2374	46	0.7626	9.9936	1	2	2 8.8 8.6 8.4
9	9.2353	43	9.2419	45	0.7581	9.9935	1	1	3 13.2 12.9 12.6
		44		44			1		4 17.6 17.2 16.8
10.0	9.2397		9.2463		0.7537	9.9934		80.0	5 22.0 21.5 21.0
									6 26.4 25.8 25.2
									7 30.8 30.1 29.4
									8 35.2 34.5 33.6
									9 39.6 38.8 37.8
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	d.	o	

o	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.	d.		P. P.	
10.0	9.2397	42	9.2463	44	0.7537	9.9934	2	80.0	41	40
1	9.2439	42	9.2507	44	0.7493	9.9932	1	9	1 4.1	4.0
2	9.2482	43	9.2551	44	0.7449	9.9931	1	8	2 8.2	8.0
3	9.2524	42	9.2594	43	0.7406	9.9929	2	7	3 12.3	12.0
		41		43			1		4 16.4	16.0
4	9.2565		9.2637		0.7363	9.9928		6	5 20.5	20.0
5	9.2606	41	9.2680	43	0.7320	9.9927	1	5	6 24.6	24.0
6	9.2647	41	9.2722	42	0.7278	9.9925	2	4	7 28.7	28.0
		40		42			1		8 32.8	32.0
7	9.2687		9.2764		0.7236	9.9924		3	9 36.9	36.0
8	9.2727	40	9.2805	41	0.7195	9.9922	2	2		
9	9.2767	40	9.2846	41	0.7154	9.9921	1	1	39	38
		39		41			2		1 3.9	3.8
11.0	9.2806	39	9.2887	40	0.7113	9.9919	2	79.0	2 7.8	7.6
1	9.2845	39	9.2927	40	0.7073	9.9918	1	9	3 11.7	11.4
2	9.2883	38	9.2967	39	0.7033	9.9916	2	8	4 15.6	15.2
3	9.2921	38	9.3006	40	0.6994	9.9915	1	7	5 19.5	19.0
		38		40			2		6 23.4	22.8
4	9.2959		9.3046		0.6954	9.9913		6	7 27.3	26.6
5	9.2997	38	9.3085	39	0.6915	9.9912	1	5	8 31.2	30.4
6	9.3034	37	9.3123	38	0.6877	9.9910	2	4	9 35.1	34.2
		36		39			1			
7	9.3070		9.3162		0.6838	9.9909		3	37	36
8	9.3107	37	9.3200	38	0.6800	9.9907	2	2	1 3.7	3.6
9	9.3143	36	9.3237	37	0.6763	9.9906	1	1	2 7.4	7.2
		36		38			2		3 11.1	10.8
12.0	9.3179	35	9.3275	37	0.6725	9.9904	2	78.0	4 14.8	14.4
1	9.3214	36	9.3312	37	0.6688	9.9902	1	9	5 18.5	18.0
2	9.3250	36	9.3349	37	0.6651	9.9901	2	8	6 22.2	21.6
3	9.3284	34	9.3385	36	0.6615	9.9899	2	7	7 25.9	25.2
		35		37			2		8 29.6	28.8
4	9.3319		9.3422		0.6578	9.9897		6	9 33.3	32.4
5	9.3353	34	9.3458	36	0.6542	9.9896	1	5		
6	9.3387	34	9.3493	36	0.6507	9.9894	2	4	35	34
		34		36			2		1 3.5	3.4
7	9.3421		9.3529		0.6471	9.9892		3	2 7.0	6.8
8	9.3455	34	9.3564	35	0.6436	9.9891	1	2	3 10.5	10.2
9	9.3488	33	9.3599	35	0.6401	9.9889	2	1	4 14.0	13.6
		33		35			2		5 17.5	17.0
13.0	9.3521	33	9.3634	34	0.6366	9.9887	2	77.0	6 21.0	20.4
1	9.3554	32	9.3668	34	0.6332	9.9885	1	9	7 24.5	23.8
2	9.3586	32	9.3702	34	0.6298	9.9884	2	8	8 28.0	27.2
3	9.3618	32	9.3736	34	0.6264	9.9882	2	7	9 31.5	30.6
		32		34			2			
4	9.3650		9.3770		0.6230	9.9880		6	33	32
5	9.3682	31	9.3804	33	0.6196	9.9878	1	5	1 3.3	3.2
6	9.3713	31	9.3837	33	0.6163	9.9876	2	4	2 6.6	6.4
		32		33			1		3 9.9	9.6
7	9.3745		9.3870		0.6130	9.9875		3	4 13.2	12.8
8	9.3775	30	9.3903	33	0.6097	9.9873	2	2	5 16.5	16.0
9	9.3806	31	9.3935	32	0.6065	9.9871	2	1	6 19.8	19.2
		31		33			2		7 23.1	22.4
14.0	9.3837	30	9.3968	32	0.6032	9.9869	2	76.0	8 26.4	25.6
1	9.3867	30	9.4000	32	0.6000	9.9867	1	9	9 29.7	28.8
2	9.3897	30	9.4032	32	0.5968	9.9865	2	8		
3	9.3927	30	9.4064	31	0.5936	9.9863	2	7	31	30
		30		31			2		1 3.1	3.0
4	9.3957		9.4095		0.5905	9.9861		6	2 6.2	6.0
5	9.3986	29	9.4127	32	0.5873	9.9859	2	5	3 9.3	9.0
6	9.4015	29	9.4158	31	0.5842	9.9857	2	4	4 12.4	12.0
		29		31			2		5 15.5	15.0
7	9.4044		9.4189		0.5811	9.9855		3	6 18.6	18.0
8	9.4073	29	9.4220	30	0.5780	9.9853	2	2	7 21.7	21.0
9	9.4102	28	9.4250	31	0.5750	9.9851	2	1	8 24.8	24.0
15.0	9.4130		9.4281		0.5719	9.9849	2	75.0	9 27.9	27.0
									29	28
									1 2.9	2.8
									2 5.8	5.6
									3 8.7	8.4
									4 11.6	11.2
									5 14.5	14.0
									6 17.4	16.8
									7 20.3	19.6
									8 23.2	22.4
									9 26.1	25.2
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	d.	o		

o	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.	d.		P. P.		
15.0	9.4130		9.4281		0.5719	9.9849		75.0			
1	9.4158	28	9.4311	30	0.5689	9.9847	2	9			
2	9.4186	28	9.4341	30	0.5659	9.9845	2	8		30	29
3	9.4214	28	9.4371	30	0.5629	9.9843	2	7	1	3.0	2.9
		28		29			2		2	6.0	5.8
4	9.4242		9.4400		0.5600	9.9841		6	3	9.0	8.7
5	9.4269	27	9.4430	30	0.5570	9.9839	2	5	4	12.0	11.6
6	9.4296	27	9.4459	29	0.5541	9.9837	2	4	5	15.0	14.5
		27		29			2		6	18.0	17.4
7	9.4323		9.4488		0.5512	9.9835		3	7	21.0	20.3
8	9.4350	27	9.4517	29	0.5483	9.9833	2	2	8	24.0	23.2
9	9.4377	27	9.4546	29	0.5454	9.9831	2	1	9	27.0	26.1
		26		29			3				
16.0	9.4403		9.4575		0.5425	9.9828		74.0		28	27
1	9.4430	27	9.4603	28	0.5397	9.9826	2	9	1	2.8	2.7
2	9.4456	26	9.4632	29	0.5368	9.9824	2	8	2	5.6	5.4
3	9.4482	26	9.4660	28	0.5340	9.9822	2	7	3	8.4	8.1
		26		28			2		4	11.2	10.8
4	9.4508		9.4688		0.5312	9.9820		6	5	14.0	13.5
5	9.4533	25	9.4716	28	0.5284	9.9817	3	5	6	16.8	16.2
6	9.4559	26	9.4744	28	0.5256	9.9815	2	4	7	19.6	18.9
		25		27			2		8	22.4	21.6
7	9.4584		9.4771		0.5229	9.9813		3	9	25.2	24.3
8	9.4609	25	9.4799	28	0.5201	9.9811	2	2			
9	9.4634	25	9.4826	27	0.5174	9.9808	3	1		26	25
		25		27			2		1	2.6	2.5
17.0	9.4659		9.4853		0.5147	9.9806		73.0			
1	9.4684	25	9.4880	27	0.5120	9.9804	2	9	2	5.2	5.0
2	9.4709	25	9.4907	27	0.5093	9.9801	3	8	3	7.8	7.5
3	9.4733	24	9.4934	27	0.5066	9.9799	2	7	4	10.4	10.0
		24		27			2		5	13.0	12.5
4	9.4757		9.4961		0.5039	9.9797		6	6	15.6	15.0
5	9.4781	24	9.4987	26	0.5013	9.9794	3	5	7	18.2	17.5
6	9.4805	24	9.5014	27	0.4986	9.9792	2	4	8	20.8	20.0
		24		26			3		9	23.4	22.5
7	9.4829		9.5040		0.4960	9.9789		3			24
8	9.4853	23	9.5066	26	0.4934	9.9787	2	2	1	2.4	2.4
9	9.4876	24	9.5092	26	0.4908	9.9785	3	1	2	4.8	4.8
		24		26			2		3	7.2	7.2
18.0	9.4900		9.5118		0.4882	9.9782		72.0			
1	9.4923	23	9.5143	25	0.4857	9.9780	2	9	4	9.6	9.6
2	9.4946	23	9.5169	26	0.4831	9.9777	3	8	5	12.0	12.0
3	9.4969	23	9.5195	26	0.4805	9.9775	2	7	6	14.4	14.4
		23		25			3		7	16.8	16.8
4	9.4992		9.5220		0.4780	9.9772		6	8	19.2	19.2
5	9.5015	23	9.5245	25	0.4755	9.9770	2	5	9	21.6	21.6
6	9.5037	23	9.5270	25	0.4730	9.9767	3	4			
		23		25			3		1	2.3	2.2
7	9.5060		9.5295		0.4705	9.9764		3	2	4.6	4.4
8	9.5082	22	9.5320	25	0.4680	9.9762	2	2	3	6.9	6.6
9	9.5104	22	9.5345	25	0.4655	9.9759	3	1	4	9.2	8.8
		22		25			2		5	11.5	11.0
19.0	9.5126		9.5370		0.4630	9.9757		71.0			
1	9.5148	22	9.5394	24	0.4606	9.9754	3	9	6	13.8	13.2
2	9.5170	22	9.5419	25	0.4581	9.9751	3	8	7	16.1	15.4
3	9.5192	21	9.5443	24	0.4557	9.9749	2	7	8	18.4	17.6
		21		24			3		9	20.7	19.8
4	9.5213		9.5467		0.4533	9.9746		6			21
5	9.5235	22	9.5491	24	0.4509	9.9743	3	5	1	2.1	2.1
6	9.5256	21	9.5516	25	0.4484	9.9741	2	4	2	4.2	4.2
		22		23			3		3	6.3	6.3
7	9.5278		9.5539		0.4461	9.9738		3	4	8.4	8.4
8	9.5299	21	9.5563	24	0.4437	9.9735	3	2	5	10.5	10.5
9	9.5320	21	9.5587	24	0.4413	9.9733	2	1	6	12.6	12.6
		21		24			3		7	14.7	14.7
20.0	9.5341		9.5611		0.4389	9.9730		70.0			
									8	16.8	16.8
									9	18.9	18.9
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	d.	o			

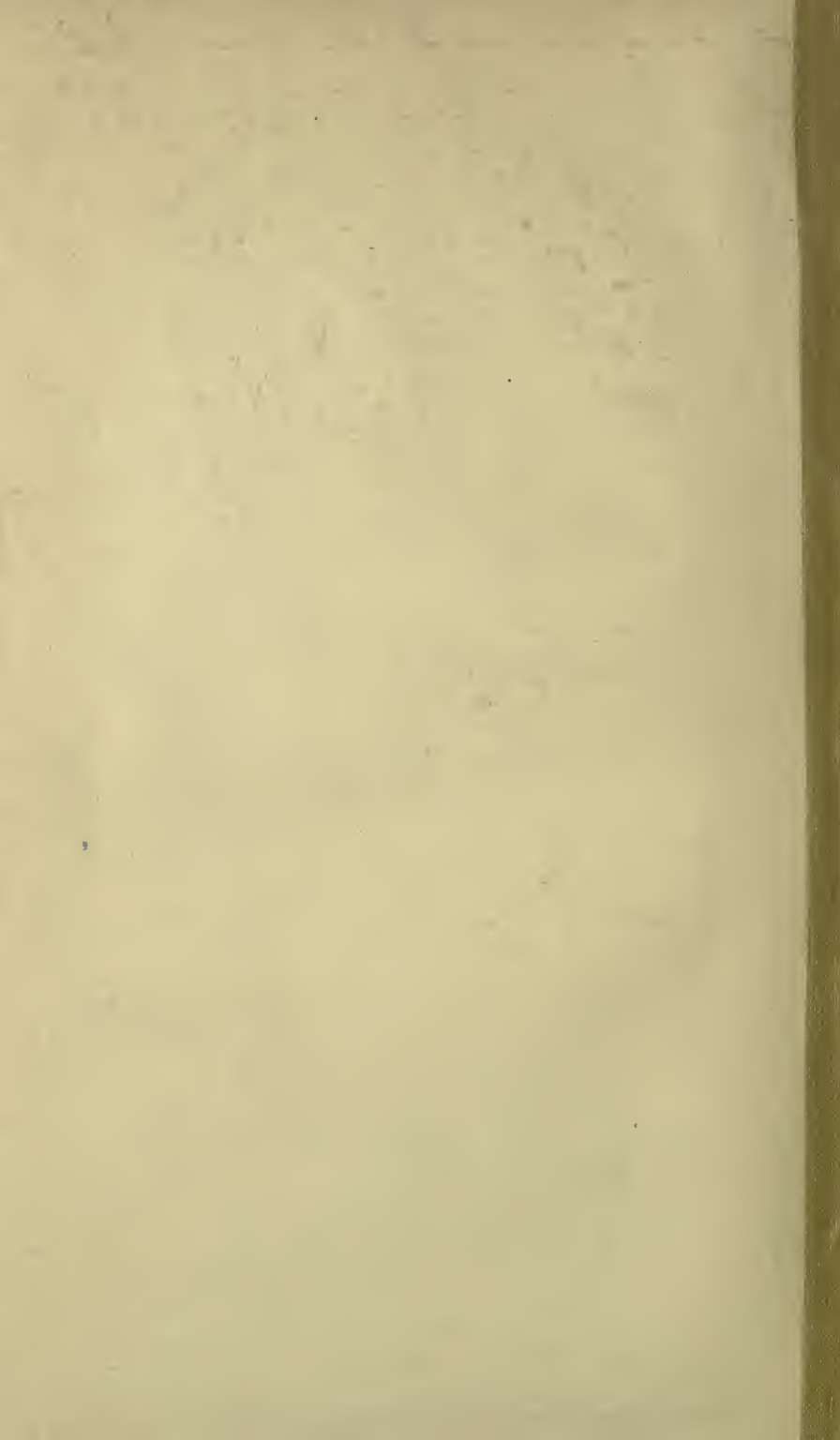
o	Lg. Sin.	d.	Lg. Tan	c. d.	Lg. Cot.	Lg. Cos.	d.		P. P.
20.0	9.5341	20	9.5611	23	0.4389	9.9730	3	70.0	
1	9.5361	20	9.5634	23	0.4366	9.9727	3	9	
2	9.5382	21	9.5658	24	0.4342	9.9724	3	8	
3	9.5402	20	9.5681	23	0.4319	9.9722	2	7	23 22
		21		23			3		1 2.3 2.2
4	9.5423		9.5704		0.4295	9.9719	3	6	2 4.6 4.4
5	9.5443	20	9.5727	23	0.4273	9.9716	3	5	3 6.9 6.6
6	9.5463	20	9.5750	23	0.4250	9.9713	3	4	4 9.2 8.8
		21		23			3		5 11.5 11.0
7	9.5484		9.5773		0.4227	9.9710	3	3	6 13.8 13.2
8	9.5504	20	9.5796	23	0.4204	9.9707	3	2	7 16.1 15.4
9	9.5523	19	9.5819	23	0.4181	9.9704	3	1	8 18.4 17.6
				23			2		9 20.7 19.8
21.0	9.5543	20	9.5842	22	0.4158	9.9702	3	69.0	
1	9.5563	20	9.5864	22	0.4136	9.9699	3	9	
2	9.5583	20	9.5887	23	0.4113	9.9696	3	8	21 20
3	9.5602	19	9.5909	22	0.4091	9.9693	3	7	1 2.1 2.0
		19		23			3		2 4.2 4.0
4	9.5621		9.5932		0.4068	9.9690	3	6	3 6.3 6.0
5	9.5641	20	9.5954	22	0.4046	9.9687	3	5	4 8.4 8.0
6	9.5660	19	9.5976	22	0.4024	9.9684	3	4	5 10.5 10.0
				22			3		6 12.6 12.0
7	9.5679		9.5998		0.4002	9.9681	3	3	7 14.7 14.0
8	9.5698	19	9.6020	22	0.3980	9.9678	3	2	8 16.8 16.0
9	9.5717	19	9.6042	22	0.3958	9.9675	3	1	9 18.9 18.0
		19		22			3		
22.0	9.5736	18	9.6064	22	0.3936	9.9672	3	68.0	
1	9.5754		9.6086		0.3914	9.9669	3	9	
2	9.5773	19	9.6108	22	0.3892	9.9666	3	8	19
3	9.5792	18	9.6129	21	0.3871	9.9662	4	7	1 1.9
				22			3		2 3.8
4	9.5810		9.6151		0.3849	9.9659	3	6	3 5.7
5	9.5828	18	9.6172	21	0.3828	9.9656	3	5	4 7.6
6	9.5847	19	9.6194	22	0.3806	9.9653	3	4	5 9.5
		18		21			3		6 11.4
7	9.5865		9.6215		0.3785	9.9650	3	3	7 13.3
8	9.5883	18	9.6236	21	0.3764	9.9647	3	2	8 15.2
9	9.5901	18	9.6257	21	0.3743	9.9643	4	1	9 17.1
				22			3		
23.0	9.5919	18	9.6279	21	0.3721	9.9640	3	67.0	
1	9.5937		9.6300		0.3700	9.9637	3	9	
2	9.5954	17	9.6321	21	0.3679	9.9634	3	8	18 17
3	9.5972	18	9.6341	20	0.3659	9.9631	3	7	1 1.8 1.7
		18		21			4		2 3.6 3.4
4	9.5990		9.6362		0.3638	9.9627	3	6	3 5.4 5.1
5	9.6007	17	9.6383	21	0.3617	9.9624	3	5	4 7.2 6.8
6	9.6024	17	9.6404	21	0.3596	9.9621	3	4	5 9.0 8.5
		18		20			4		6 10.8 10.2
7	9.6042		9.6424		0.3576	9.9617	3	3	7 12.6 11.9
8	9.6059	17	9.6445	21	0.3555	9.9614	3	2	8 14.4 13.6
9	9.6076	17	9.6465	20	0.3535	9.9611	3	1	9 16.2 15.3
				21			4		
24.0	9.6093	17	9.6486	20	0.3514	9.9607	3	66.0	
1	9.6110		9.6506		0.3494	9.9604	3	9	
2	9.6127	17	9.6527	21	0.3473	9.9601	3	8	16
3	9.6144	17	9.6547	20	0.3453	9.9597	4	7	1 1.6
		17		20			3		2 3.2 3.4
4	9.6161		9.6567		0.3433	9.9594	4	6	3 4.8
5	9.6177	16	9.6587	20	0.3413	9.9590	3	5	4 6.4
6	9.6194	17	9.6607	20	0.3393	9.9587	3	4	5 8.0
		16		20			4		6 9.6
7	9.6210		9.6627		0.3373	9.9583	3	3	7 11.2
8	9.6227	17	9.6647	20	0.3353	9.9580	3	2	8 12.8
9	9.6243	16	9.6667	20	0.3333	9.9576	4	1	9 14.4
		16		20			3		
25.0	9.6259		9.6687		0.3313	9.9573	3	65.0	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan	Lg. Sin.	d.	o	

o	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.	d.	P. P.		
25.0	9.6259		9.6687		0.3313	9.9573		65.0		
1	9.6276	17	9.6706	19	0.3294	9.9569	4	9		
2	9.6292	16	9.6726	20	0.3274	9.9566	3	8	20	19
3	9.6308	16	9.6746	20	0.3254	9.9562	4	7	1	2.0
		16		19			4	6	2	4.0
4	9.6324		9.6765		0.3235	9.9558		5	3	6.0
5	9.6340	16	9.6785	20	0.3215	9.9555	3	4	4	8.0
6	9.6356	16	9.6804	19	0.3196	9.9551	4	4	5	10.0
		15		20			3	3	6	12.0
7	9.6371		9.6824		0.3176	9.9548		2	7	14.0
8	9.6387	16	9.6843	19	0.3157	9.9544	4	2	8	16.0
9	9.6403	16	9.6863	20	0.3137	9.9540	4	1	9	18.0
		15		19			3			
26.0	9.6418		9.6882		0.3118	9.9537		64.0		
1	9.6434	16	9.6901	19	0.3099	9.9533	4	9		
2	9.6449	15	9.6920	19	0.3080	9.9529	4	8	18	17
3	9.6465	16	9.6939	19	0.3061	9.9525	4	7	1	1.8
		15		19			3	6	2	3.6
4	9.6480		9.6958		0.3042	9.9522		5	3	5.4
5	9.6495	15	9.6977	19	0.3023	9.9518	4	5	4	7.2
6	9.6510	15	9.6996	19	0.3004	9.9514	4	4	5	9.0
		16		19			4	3	6	10.8
7	9.6526		9.7015		0.2985	9.9510		2	7	12.6
8	9.6541	15	9.7034	19	0.2966	9.9506	4	2	8	14.4
9	9.6556	15	9.7053	19	0.2947	9.9503	3	1	9	16.2
		14		19			4			
27.0	9.6570		9.7072		0.2928	9.9499		63.0		
1	9.6585	15	9.7090	18	0.2910	9.9495	4	9		
2	9.6600	15	9.7109	19	0.2891	9.9491	4	8	16	15
3	9.6615	15	9.7128	19	0.2872	9.9487	4	7	1	1.6
		14		18			4	6	2	3.2
4	9.6629		9.7146		0.2854	9.9483		5	3	4.8
5	9.6644	15	9.7165	19	0.2835	9.9479	4	5	4	6.4
6	9.6659	15	9.7183	18	0.2817	9.9475	4	4	5	8.0
		14		19			4	3	6	9.6
7	9.6673		9.7202		0.2798	9.9471		2	7	11.2
8	9.6687	14	9.7220	18	0.2780	9.9467	4	2	8	12.8
9	9.6702	15	9.7238	18	0.2762	9.9463	4	1	9	14.4
		14		19			4			
28.0	9.6716		9.7257		0.2743	9.9459		62.0		
1	9.6730	14	9.7275	18	0.2725	9.9455	4	9		
2	9.6744	14	9.7293	18	0.2707	9.9451	4	8	14	13
3	9.6759	15	9.7311	18	0.2689	9.9447	4	7	1	1.4
		14		19			4	6	2	2.8
4	9.6773		9.7330		0.2670	9.9443		5	3	4.2
5	9.6787	14	9.7348	18	0.2652	9.9439	4	5	4	5.6
6	9.6801	14	9.7366	18	0.2634	9.9435	4	4	5	7.0
		13		18			4	3	6	8.4
7	9.6814		9.7384		0.2616	9.9431		2	7	9.8
8	9.6828	14	9.7402	18	0.2598	9.9427	4	2	8	11.2
9	9.6842	14	9.7420	18	0.2580	9.9422	5	1	9	12.6
		14		18			4			
29.0	9.6856		9.7438		0.2562	9.9418		61.0		
1	9.6869	13	9.7455	17	0.2545	9.9414	4	9	3	4
2	9.6883	14	9.7473	18	0.2527	9.9410	4	8	1	0.3
3	9.6896	13	9.7491	18	0.2509	9.9406	4	7	2	0.6
		14		18			5	6	3	0.9
4	9.6910		9.7509		0.2491	9.9401		5	4	1.2
5	9.6923	13	9.7526	17	0.2474	9.9397	4	5	5	1.5
6	9.6937	14	9.7544	18	0.2456	9.9393	4	4	6	1.8
		13		18			5	3	7	2.1
7	9.6950		9.7562		0.2438	9.9388		2	8	2.4
8	9.6963	13	9.7579	17	0.2421	9.9384	4	2	9	2.7
9	9.6977	14	9.7597	18	0.2403	9.9380	4	1		
		13		17			5			
30.0	9.6990		9.7614		0.2386	9.9375		60.0		
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	d.	o		

o	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.	d.		P. P.	
30.0	9.6990		9.7614		0.2386	9.9375		60.0		
1	9.7003	13	9.7632	18	0.2368	9.9371	4	9		
2	9.7016	13	9.7649	17	0.2351	9.9367	4	8		
3	9.7029	13	9.7667	18	0.2333	9.9362	5	7	18	17
		13		17			4		1.8	1.7
4	9.7042		9.7684		0.2316	9.9358		6	3.6	3.4
5	9.7055	13	9.7701	17	0.2299	9.9353	5	5	5.4	5.1
6	9.7068	13	9.7719	18	0.2281	9.9349	4	4	7.2	6.8
		12		17			5		9.0	8.5
7	9.7080		9.7736		0.2264	9.9344		3	10.8	10.2
8	9.7093	13	9.7753	17	0.2247	9.9340	4	2	12.6	11.9
9	9.7106	13	9.7771	18	0.2229	9.9335	5	1	14.4	13.6
		12		17			4		16.2	15.3
31.0	9.7118		9.7788		0.2212	9.9331		59.0		
1	9.7131	13	9.7805	17	0.2195	9.9326	5	9		
2	9.7144	13	9.7822	17	0.2178	9.9322	4	8		16
3	9.7156	12	9.7839	17	0.2161	9.9317	5	7	1	1.6
		12		17			5		2	3.2
4	9.7168		9.7856		0.2144	9.9312		6	3	4.8
5	9.7181	13	9.7873	17	0.2127	9.9308	4	5	4	6.4
6	9.7193	12	9.7890	17	0.2110	9.9303	5	4	5	8.0
		12		17			5		6	9.6
7	9.7205		9.7907		0.2093	9.9298		3	7	11.2
8	9.7218	13	9.7924	17	0.2076	9.9294	4	2	8	12.8
9	9.7230	12	9.7941	17	0.2059	9.9289	5	1	9	14.4
		12		17			5			
32.0	9.7242		9.7958		0.2042	9.9284		58.0		
1	9.7254	12	9.7975	17	0.2025	9.9279	5	9		
2	9.7266	12	9.7992	17	0.2008	9.9275	4	8	13	12
3	9.7278	12	9.8008	16	0.1992	9.9270	5	7	1	1.3
		12		17			5		2	2.6
4	9.7290		9.8025		0.1975	9.9265		6	3	3.9
5	9.7302	12	9.8042	17	0.1958	9.9260	5	5	4	5.2
6	9.7314	12	9.8059	17	0.1941	9.9255	5	4	5	6.5
		12		16			4		6	7.8
7	9.7326		9.8075		0.1925	9.9251		3	7	9.1
8	9.7338	12	9.8092	17	0.1908	9.9246	5	2	8	10.4
9	9.7349	11	9.8109	17	0.1891	9.9241	5	1	9	11.7
		12		16			5			10.8
33.0	9.7361		9.8125		0.1875	9.9236		57.0		
1	9.7373	12	9.8142	17	0.1858	9.9231	5	9		
2	9.7384	11	9.8158	16	0.1842	9.9226	5	8		11
3	9.7396	12	9.8175	17	0.1825	9.9221	5	7	1	1.1
		11		16			5		2	2.2
4	9.7407		9.8191		0.1809	9.9216		6	3	3.3
5	9.7419	12	9.8208	17	0.1792	9.9211	5	5	4	4.4
6	9.7430	11	9.8224	16	0.1776	9.9206	5	4	5	5.5
		12		17			5		6	6.6
7	9.7442		9.8241		0.1759	9.9201		3	7	7.7
8	9.7453	11	9.8257	16	0.1743	9.9196	5	2	8	8.8
9	9.7464	11	9.8274	17	0.1726	9.9191	5	1	9	9.9
		12		16			5			
34.0	9.7476		9.8290		0.1710	9.9186		56.0		
1	9.7487	11	9.8306	16	0.1694	9.9181	5	9		
2	9.7498	11	9.8323	17	0.1677	9.9175	6	8	5	6
3	9.7509	11	9.8339	16	0.1661	9.9170	5	7	1	0.5
		11		16			5		2	1.0
4	9.7520		9.8355		0.1645	9.9165		6	3	1.5
5	9.7531	11	9.8371	16	0.1629	9.9160	5	5	4	2.0
6	9.7542	11	9.8388	17	0.1612	9.9155	5	4	5	2.5
		11		16			6		6	3.0
7	9.7553		9.8404		0.1596	9.9149		3	7	3.5
8	9.7564	11	9.8420	16	0.1580	9.9144	5	2	8	4.0
9	9.7575	11	9.8436	16	0.1564	9.9139	5	1	9	4.5
		11		16			5			4.8
35.0	9.7586		9.8452		0.1548	9.9134		55.0		
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	d.	o		

o	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.	d.		P. P.
35.0	9.7586	11	9.8452	16	0.1548	9.9134	6	55.0	
1	9.7597	10	9.8468	16	0.1532	9.9128	5	9	
2	9.7607	11	9.8484	17	0.1516	9.9123	5	8	
3	9.7618	11	9.8501	16	0.1499	9.9118	6	7	
4	9.7629	11	9.8517	16	0.1483	9.9112	5	6	
5	9.7640	10	9.8533	16	0.1467	9.9107	5	5	
6	9.7650	11	9.8549	16	0.1451	9.9101	5	4	
7	9.7661	10	9.8565	16	0.1435	9.9096	5	3	
8	9.7671	11	9.8581	16	0.1419	9.9091	6	2	
9	9.7682	10	9.8597	16	0.1403	9.9085	5	1	
36.0	9.7692	11	9.8613	16	0.1387	9.9080	6	54.0	
1	9.7703	10	9.8629	15	0.1371	9.9074	6	9	
2	9.7713	10	9.8644	16	0.1356	9.9069	6	8	
3	9.7723	11	9.8660	16	0.1340	9.9063	6	7	
4	9.7734	10	9.8676	16	0.1324	9.9057	5	6	
5	9.7744	10	9.8692	16	0.1308	9.9052	5	5	
6	9.7754	10	9.8708	16	0.1292	9.9046	5	4	
7	9.7764	10	9.8724	16	0.1276	9.9041	6	3	
8	9.7774	11	9.8740	15	0.1260	9.9035	6	2	
9	9.7785	10	9.8755	16	0.1245	9.9029	6	1	
37.0	9.7795	10	9.8771	16	0.1229	9.9023	5	53.0	
1	9.7805	10	9.8787	16	0.1213	9.9018	6	9	
2	9.7815	10	9.8803	15	0.1197	9.9012	6	8	
3	9.7825	10	9.8818	16	0.1182	9.9006	6	7	
4	9.7835	9	9.8834	16	0.1166	9.9000	5	6	
5	9.7844	10	9.8850	15	0.1150	9.8995	6	5	
6	9.7854	10	9.8865	16	0.1135	9.8989	6	4	
7	9.7864	10	9.8881	16	0.1119	9.8983	6	3	
8	9.7874	10	9.8897	15	0.1103	9.8977	6	2	
9	9.7884	9	9.8912	16	0.1088	9.8971	6	1	
38.0	9.7893	10	9.8928	16	0.1072	9.8965	6	52.0	
1	9.7903	10	9.8944	15	0.1056	9.8959	6	9	
2	9.7913	9	9.8959	16	0.1041	9.8953	6	8	
3	9.7922	10	9.8975	15	0.1025	9.8947	6	7	
4	9.7932	9	9.8990	16	0.1010	9.8941	6	6	
5	9.7941	10	9.9006	16	0.0994	9.8935	6	5	
6	9.7951	9	9.9022	15	0.0978	9.8929	6	4	
7	9.7960	10	9.9037	16	0.0963	9.8923	6	3	
8	9.7970	9	9.9053	15	0.0947	9.8917	6	2	
9	9.7979	10	9.9068	16	0.0932	9.8911	6	1	
39.0	9.7989	9	9.9084	15	0.0916	9.8905	6	51.0	
1	9.7998	9	9.9099	16	0.0901	9.8899	6	9	
2	9.8007	10	9.9115	15	0.0885	9.8893	6	8	
3	9.8017	9	9.9130	16	0.0870	9.8887	7	7	
4	9.8026	9	9.9146	15	0.0854	9.8880	6	6	
5	9.8035	9	9.9161	15	0.0839	9.8874	6	5	
6	9.8044	9	9.9176	16	0.0824	9.8868	6	4	
7	9.8053	10	9.9192	15	0.0808	9.8862	7	3	
8	9.8063	9	9.9207	16	0.0793	9.8855	6	2	
9	9.8072	9	9.9223	15	0.0777	9.8849	6	1	
40.0	9.8081		9.9238		0.0762	9.8843		50.0	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	d.	o	

o	Lg. Sin.	d.	Lg. Tan.	c. d.	Lg. Cot.	Lg. Cos.	d.		P. P.
40.0	9.8081		9.9238		0.0762	9.8843		50.0	
1	9.8090	9	9.9254	16	0.0746	9.8836	7	9	
2	9.8099	9	9.9269	15	0.0731	9.8830	6	8	
3	9.8108	9	9.9284	15	0.0716	9.8823	7	7	16
		9		16			6		1 1.6
4	9.8117		9.9300		0.0700	9.8817		6	2 3.2
5	9.8125	8	9.9315	15	0.0685	9.8810	7	5	3 4.8
6	9.8134	9	9.9330	15	0.0670	9.8804	6	4	4 6.4
		9		16			7		5 8.0
7	9.8143		9.9346		0.0654	9.8797		3	6 9.6
8	9.8152	9	9.9361	15	0.0639	9.8791	6	2	7 11.2
9	9.8161	9	9.9376	15	0.0624	9.8784	7	1	8 12.8
		8		16			6		9 14.4
41.0	9.8169		9.9392		0.0608	9.8778		49.0	
1	9.8178	9	9.9407	15	0.0593	9.8771	7	9	
2	9.8187	9	9.9422	15	0.0578	9.8765	6	8	15
3	9.8195	8	9.9438	16	0.0562	9.8758	7	7	1 1.5
		9		15			7		2 3.0
4	9.8204		9.9453		0.0547	9.8751		6	3 4.5
5	9.8213	9	9.9468	15	0.0532	9.8745	6	5	4 6.0
6	9.8221	8	9.9483	15	0.0517	9.8738	7	4	5 7.5
		9		16			7		6 9.0
7	9.8230		9.9499		0.0501	9.8731		3	7 10.5
8	9.8238	8	9.9514	15	0.0486	9.8724	7	2	8 12.0
9	9.8247	9	9.9529	15	0.0471	9.8718	6	1	9 13.5
		8		15			7		
42.0	9.8255		9.9544		0.0456	9.8711		48.0	
1	9.8264	9	9.9560	16	0.0440	9.8704	7	9	
2	9.8272	8	9.9575	15	0.0425	9.8697	7	8	9
3	9.8280	8	9.9590	15	0.0410	9.8690	7	7	1 0.9
		9		15			7		2 1.8
4	9.8289		9.9605		0.0395	9.8683		6	3 2.7
5	9.8297	8	9.9621	16	0.0379	9.8676	7	5	4 3.6
6	9.8305	8	9.9636	15	0.0364	9.8669	7	4	5 4.5
		8		15			7		6 5.4
7	9.8313		9.9651		0.0349	9.8662		3	7 6.3
8	9.8322	9	9.9666	15	0.0334	9.8655	7	2	8 7.2
9	9.8330	8	9.9681	15	0.0319	9.8648	7	1	9 8.1
		8		16			7		
43.0	9.8338		9.9697		0.0303	9.8641		47.0	
1	9.8346	8	9.9712	15	0.0288	9.8634	7	9	
2	9.8354	8	9.9727	15	0.0273	9.8627	7	8	8
3	9.8362	8	9.9742	15	0.0258	9.8620	7	7	1 0.8
		8		15			7		2 1.6
4	9.8370		9.9757		0.0243	9.8613		6	3 2.4
5	9.8378	8	9.9772	15	0.0228	9.8606	7	5	4 3.2
6	9.8386	8	9.9788	16	0.0212	9.8598	8	4	5 4.0
		8		15			7		6 4.8
7	9.8394		9.9803		0.0197	9.8591		3	7 5.6
8	9.8402	8	9.9818	15	0.0182	9.8584	7	2	8 6.4
9	9.8410	8	9.9833	15	0.0167	9.8577	7	1	9 7.2
		8		15			8		
44.0	9.8418		9.9848		0.0152	9.8569		46.0	
1	9.8426	8	9.9864	16	0.0136	9.8562	7	9	
2	9.8433	7	9.9879	15	0.0121	9.8555	7	8	6
3	9.8441	8	9.9894	15	0.0106	9.8547	7	7	1 0.6
		8		15			7		2 1.4
4	9.8449		9.9909		0.0091	9.8540		6	3 1.8
5	9.8457	8	9.9924	15	0.0076	9.8532	8	5	4 2.4
6	9.8464	7	9.9939	15	0.0061	9.8525	7	4	5 3.0
		8		16			8		6 3.6
7	9.8472		9.9955		0.0045	9.8517		3	7 4.2
8	9.8480	8	9.9970	15	0.0030	9.8510	7	2	8 4.8
9	9.8487	7	9.9985	15	0.0015	9.8502	8	1	9 5.4
		8		15			7		
45.0	9.8495		10.0000		0.0000	9.8495		45.0	
	Lg. Cos.	d.	Lg. Cot.	c. d.	Lg. Tan.	Lg. Sin.	d.	o	



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